

The Milbank Memorial Fund  
QUARTERLY

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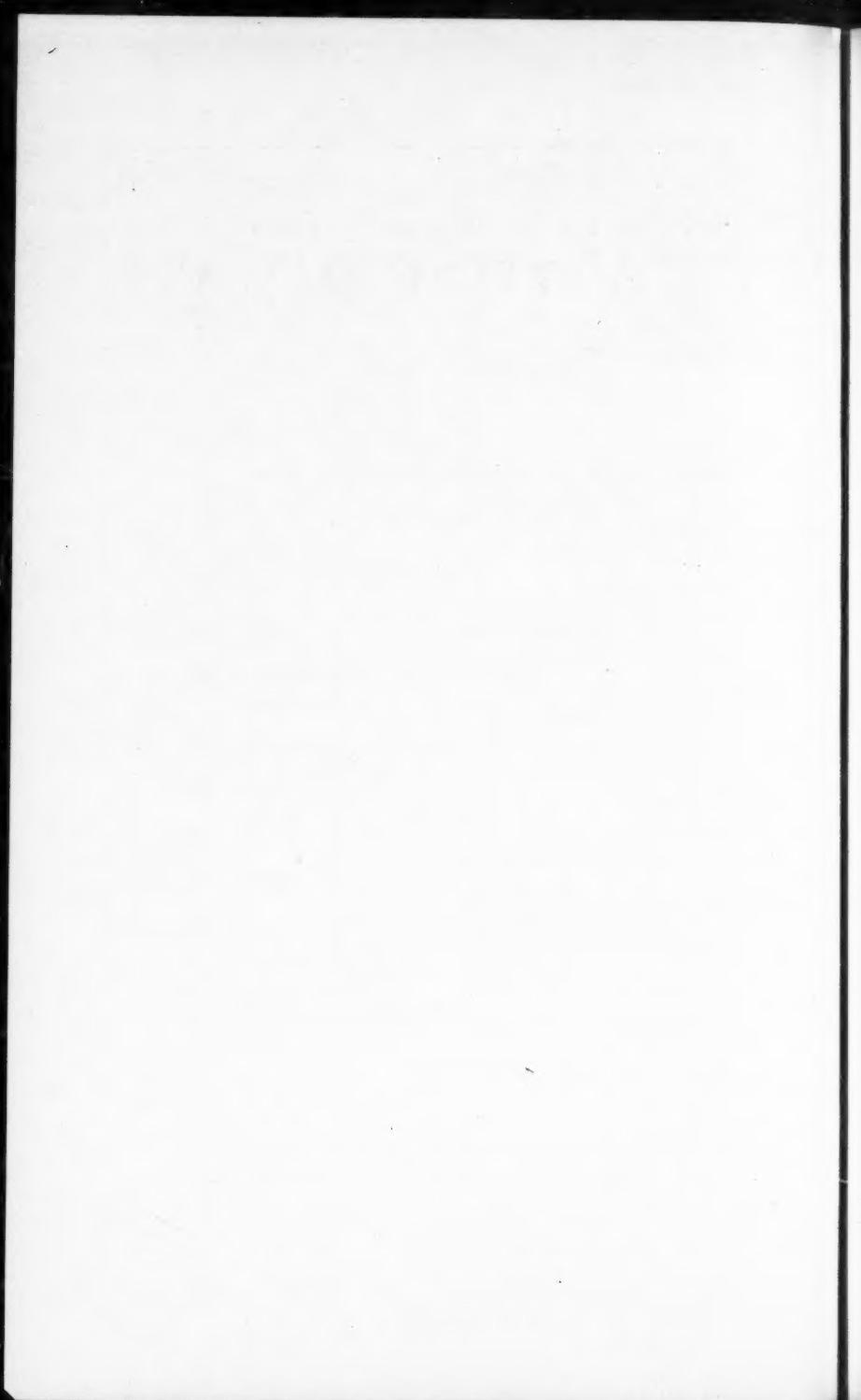
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## IN THIS ISSUE

A ROUND Table on International Approaches to Problems of Undeveloped Areas was held November 19-20, 1947, in connection with the Annual Conference of the Milbank Memorial Fund. Nine of the papers presented at that round table were made available for publication and appear in this issue. They will also appear shortly under another cover as part of the proceedings of the Conference.

The introductory paper, "Summary of the Demographic Background of Problems of Undeveloped Areas," is presented by Professor Frank W. Notestein, Director of the Office of Population Research of Princeton University, and Consultant-Director of the Population Division of the United Nations. The author cites the capacity for rapid growth as the common demographic characteristic of undeveloped areas, emphasizes the importance of demographic factors in economic planning, and suggests several ways in which an international demographic agency, such as the Population Commission of the United Nations, might contribute toward the ultimate achievement of a balanced modernization of undeveloped areas.

Professor Henri Laugier, Assistant Secretary-General of the Department of Social Affairs of the United Nations, urges a world inventory of natural resources in the next paper entitled "The First Step in International Approach to Problems of Underdeveloped Areas." The author acknowledges that this task is tremendous but not, he says, "an excessively large one if we reflect on the immense hopes which the peoples of the world have placed in the United Nations, and on the rapid progress which the underdeveloped countries could make if the natural resources dormant in their territories were exploited."

The paper, "International Approaches to Economic Development of Undeveloped Areas," was written by Dr. David Weintraub, Director of the Division of Economic Stability and Development of the United Nations. Dr. Weintraub discusses the underlying philosophy, the scope, and the techniques of the United Nations' efforts at promoting "the economic and social advancement of all peoples." Special attention is given to (a) the desirability of well-rounded instead of purely economic development; (b) the importance of helping countries to help themselves; (c) the adaptation of technologies to different levels of cultural development; (d) the creation of favorable atmospheres; (e) special trade measures; and (f) regional arrangements, financial problems, and demographic problems.

Dr. Leonard B. Rist, Director of Research of the International Bank for Reconstruction and Development, contributes a paper entitled "Financial Aspects of International Approaches to Problems of Undeveloped Areas." Choosing Latin America for purposes of illustration, he discusses the manner in which internal financial problems and financial relations with other countries bear upon general problems of economic development.

Mr. Samuel H. Thompson presents a paper entitled "Social Aspects of Rural Industrialization." An engineer with experience as a former Rural Industries Project Leader for FAO, Mr. Thompson believes that if rural industries are to contribute to the construction of balanced and viable societies in undeveloped agrarian areas, they should begin with existing resources, skills, and native leadership and be developed largely by the people themselves within the context of their own social institutions and cultures.

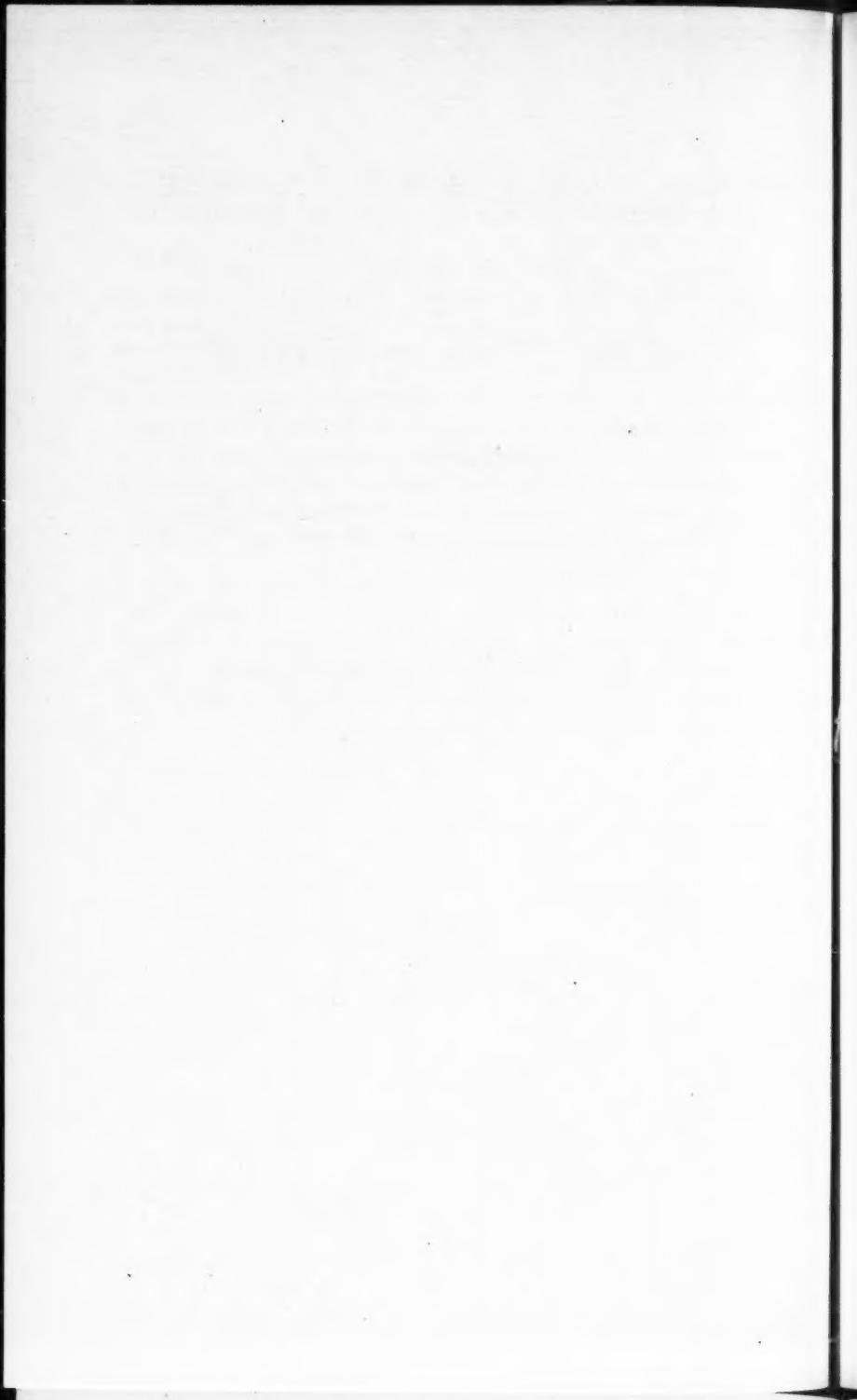
Dr. William P. Forrest, Assistant Director, Headquarters Office, World Health Organization, provides a stimulating paper "Health Aspects of International Approaches to Problems of Undeveloped Areas." The author traces briefly the evolution of international attitudes toward health from the first international concern over sanitation and a few communicable diseases to the broad scope of the philosophy underlying WHO.

Sir Raphael Cilento, Director of the Division of Social Activities of the United Nations, takes the long view in his paper "Underdeveloped Areas in Social Evolutionary Perspective."

He discusses the problems of these areas in relation to the universal quest of human societies for a balance between population and subsistence.

The two last papers of the series are devoted specifically to Puerto Rico. The first of these, "Puerto Rico's Population Problem: Research and Policy," was prepared by Dr. Kingsley Davis under the auspices of the Office of Population Research of Princeton University. The author discusses briefly the general demographic trends in Puerto Rico and describes several current research projects bearing on the population of the area. Among the latter is a study jointly conducted by the Office of Population Research of Princeton University and the Social Science Research Center of the University of Puerto Rico.

Dr. Rexford Guy Tugwell, formerly Governor of Puerto Rico and currently Professor of Political Science at The University of Chicago, presents the final paper, "Problems of Reconstruction in Puerto Rico." He discusses three main avenues of attack on these problems that he attempted during the period of his governorship. These included certain reorganizations in government, efforts at promoting industrialization, and efforts at promoting a sounder agriculture.



## SUMMARY OF THE DEMOGRAPHIC BACKGROUND OF PROBLEMS OF UNDEVELOPED AREAS

FRANK W. NOTESTEIN<sup>1</sup>

THE problem of modernizing undeveloped areas may be usefully approached from the point of view of population changes for two reasons: (1) It is from the demographic point of view that the interrelated nature of social, economic, and political change is most apparent in long-range perspective; and (2) for a large proportion of the world it is the impact of economic and social change on population growth that presents one of the major obstacles to modernization.

The purpose of this introductory note is to serve as a background for the following papers by indicating briefly, even dogmatically, the nature of the impact of social and economic change on population growth, particularly in the undeveloped regions of dense settlement. In addition, some of the things that need to be done at the international level in the field of population studies will be suggested.

The common element in the demographic situation of undeveloped areas is the capacity of the population for rapid growth, given political stability and economic expansion. Some of the areas are sparsely settled, some are among the world's most densely populated regions; some have recently had declining numbers, others are growing slowly, and still others at a very rapid pace. In matters of density and current rates of growth there is no uniformity. The common characteristic is that, in virtually all, more stable government and economic development would produce a rapid and somewhat prolonged population increase.

There is no mystery about the rapid population growth that accompanies modernization in undeveloped areas. The process has been observed many times and the general principles are well understood. Societies with low levels of technical skill are

<sup>1</sup> Director, Office of Population Research, Princeton University, and Consultant-Director, Population Division, United Nations.

inevitably poor, ill-housed, ill-clothed, ill-fed, and subject to the uncontrolled ravages of disease. Such populations must have high birth rates to match their inevitably high death rates. Those that did not have high birth rates are no longer represented in the world. The very existence of such populations in the race of the toll of heavy mortality proves that the birth rates are high, and that the societies have developed the social structures essential to produce and maintain high birth rates.

Mortality can be quickly reduced from the high levels characteristic of most undeveloped areas without any substantial modifications of the social structure, at least in the initial stages. Political order, minimum efforts to control epidemics, rudimentary transportation, and slight improvements in the techniques of agriculture and industrial production bring death rates down with remarkable speed.

Human fertility, on the other hand, responds scarcely at all in the initial, and often superimposed, stages of such changes—changes that too often influence only the externals of life and leave the opportunities, hopes, fears, beliefs, customs, and social organization of the masses of the people relatively untouched. These latter are the factors that control fertility, and since they are unmodified, fertility remains high while mortality declines. Hence there is a substantial margin of population growth.

The small family pattern to which we are now accustomed in the Western world is not in any important degree due to the biological incapacity to reproduce. For that conclusion there is ample evidence. The change from the pre-modern levels of high fertility to the present-day small family of the Western world came about primarily from changes in the age at marriage, in the proportion marrying, and in the prevalence and effectiveness of the practice of birth control. It must be emphasized, however, that the decline in fertility requires more profound changes than the mere availability of the convenient contraceptive. Whether or not a population restricts its fertility severely (and every population restricts it in some degree) depends on the social organization, customs, and beliefs from

which arise the aspirations of its people with respect to family size. These matters, the heritage of past ages, lie at the core of the society and are scarcely modified by relatively small changes in government, in modes of production, and in sanitation.

The trend toward the small family in the West came typically in an urban setting. City life stripped the family of many of its functions. These functions were progressively filled by secondary groups in which the individual was in large measure on his own. Urbanization did much to weaken the ties of older beliefs and customs, and the community sanctions with which they were maintained. On the positive side, urban living gave the individual many opportunities for advancement on his own merits. In a word, the whole trend was away from the family and toward an individualistic life in a setting that put heavy pressure on a large family. As a result parents gradually sought to have only a few children to whom they could give opportunity for advancement. They came to adopt birth control in ever-growing numbers and came to practice it with increasing effectiveness. These changes, however, involved changes in man's deepest beliefs and such changes came slowly. The decline in the birth rates, therefore, came long after death rates began to drop. In the Western world birth rates have only recently come again into near balance with the death rates. It is the lag in the decline of fertility behind that of mortality which accounts for the epoch of population growth resulting from modernization. Europe's transition took approximately three hundred years and resulted in something like a sevenfold multiplication in the population of European extraction. There is no past transition that involved less than a century and less than a threefold multiplication of population.

It should be clear that there is nothing inevitable about the exact amount of time and the precise amount of growth involved in the demographic transition. Careful planning, particularly in the early stages, might speed the process and limit the amount by which the population expands. To put the prob-

lem in perspective, it may be over-dogmatically asserted that in many of the world's most densely settled regions a successful transition would limit growth to a doubling of the present population, without major intervening catastrophes.

In such regions the danger is that there will be only moderate economic and sanitary improvement unaccompanied by the social changes that affect fertility. Such social changes will be difficult to achieve unless economic development is rapid enough to lift the level of living in spite of substantial population increase. If gains in production only match those in population growth, "improvement" may result principally in ever larger masses of humanity living close to the margins of existence and vulnerable to every shock in the world economic and political structure. Such "progress" may amount to setting the stage for calamity. Much of Asia seems to be perilously close to this situation.

All of the foregoing is an old story to demographers, but it may help those not primarily concerned with population trends to consider a few illustrations. In such areas as Formosa, the Philippines, Java, and Korea there has been considerable economic development in the past decades. This development has been primarily agricultural and has done rather little to change the structure of the societies. Birth rates have remained substantially unaffected, but stable government and improved productive techniques in agriculture, coupled with a little sanitation, have cut the death rates. Before the war the populations were growing at rates between 2 and 3 per cent a year (3 per cent per annum doubles a population in twenty-three years). The results were mounting densities, ever narrowing bases for future economic development, and populations whose capacity for future growth remained unimpaired.

No more striking illustration of the limitations, from the demographic point of view, of "good government and economic development" can be given than the case of Java. Since 1860 under an efficient regime marked advances have been made in sanitation and in agricultural production. Between 1860 and

1930 the population increased threefold. By 1930 there were more than 800 persons per square mile. Yet there is no evidence of substantial improvement in the level of living of the mass of the population, and the limits within which agricultural production can be extended were becoming narrow. The customary way of life changed rather little, and there was little indication of the sort of changes that presage a decline in fertility. If past rates of increase are to continue unchecked, the problem of supporting more than 1,500 people per square mile will have to be faced by the year 2000. The case is an extreme one because few areas have been as "well managed"; but the principles are characteristic of much in the Asiatic situation.

It should not be supposed from the foregoing that we may expect rapid population growth in Asia. The growth will be large because the base populations are large. It will not necessarily be rapid. Fertility is ample to yield rapid growth if low death rates can be attained. Whether they can be attained for a substantial period of time depends in large measure on whether economic development can come rapidly enough to forestall catastrophes. A sober consideration of the existing situation leads one to expect that catastrophes will in fact check rapid growth. It points to the urgency of rapid economic development on a broad front to forestall such tragedy. It also points to the urgency of giving attention in regional planning to those changes which bring pressure on the birth rate. Today's problem arises in large part from the absence of such planning in the vast agricultural development of these regions. It is clear that in the long run high birth rates are incompatible with low death rates.

With this slight background we may turn very briefly to a few of the things that are needed if international population problems are to be dealt with constructively.

First of all, we need to know how to reduce birth rates in an agrarian society. The problem is too urgent to permit us to await the results of gradual processes of urbanization, such as took place in the Western world. We need to know more about

the causes of the decline of the birth rate in rural France in the early nineteenth century, and in Eastern Europe between the wars. We need concrete experiments in the processes of social change in peasant populations with high fertility.

We also need increased knowledge of the physiology of reproduction. The problem of the voluntary control of fertility when the individual incentives for such control are not strong may prove insoluble with available methods. It is quite possible that an expansion of fundamental knowledge of the physiology of human reproduction would result in much simpler and more effective methods of contraception which would find more general acceptance.

It is also evident that there must be a much deeper understanding of the processes of population change if there are to be wise policies at the international level. At present much of the debate on population policies in international circles is on the ideological level. People are in favor of, or are opposed to, particular forms of birth control; in favor of, or opposed to, large migration; they are neo-Malthusian, or Marxist, or in opposition to both positions. All too seldom is there any appreciation of the complexity of the problems. Mutually incompatible policies are often advocated. Nor is there any adequate appreciation of the substantial latitude that each of the major ideologies provides for a common meeting ground in the formation of policy. There has been too much bandying of slogans, and too little careful study.

We need specific and careful studies of the interrelations of population, social, and economic change. The Population Commission of the United Nations has every prospect of making important contributions in this field. It has in general taken the view that its first obligation is to lay the appropriate analytical and factual foundations before entering upon the discussion of policies. One of its first requests was to call for the submission of a plan by which Member States can examine fruitfully the interrelation of demographic, social, and economic changes tending to hinder the attainment of an adequate stand-

ard of living and cultural development. The discussion of such plans, and still more their execution by a few Member States, should do much to clear up misunderstanding. It should go far toward demonstrating that wise policy in the field of human welfare is not segmented by the boundaries of the intellectual disciplines. The solution of the population problems of the world's undeveloped areas will require that demographic factors be taken into account in all planning for higher living levels, social welfare, and health. Moreover, unless solutions to the demographic problems are found, efforts to advance in these other fields may be self-defeating.

## THE FIRST STEP IN THE INTERNATIONAL APPROACH TO THE PROBLEMS OF UNDERDEVELOPED AREAS

HENRI LAUGIER<sup>1</sup>

I THINK I owe the honour of being invited to take part in your Round Table to the fact that I am in charge of the United Nations' Department of Social Affairs. I thank you for your invitation and hope you will permit me to lay aside for a time some of the obligations which burden the shoulders of an international civil servant and speak to you as if I were still what I used to be, and what I sometimes regret I no longer am—a scientist, who had the formidable job of directing the National Research Centre in France.

I still think that human progress depends on the development and application to the greatest possible extent of scientific research. When there are regions and nations whose physical, intellectual, and moral development lags behind the general pace of civilization, immediate concrete measures can doubtless be taken to help them along the path of human progress. What are those concrete measures? The answer to this question requires study by specialists in international cooperation.

But if we try to look at the problem as a whole; if we try to examine plans for long-range international action to further the development of underdeveloped regions—here it seems to me is a fundamental point of permanent interest.

Permit me to point out some obvious facts. The development of a country depends primarily on a material factor: first, the *knowledge* and then the *exploitation*, of all its natural resources. Now, while the accuracy of our knowledge of the geography of the globe, though varying from region to region, is none the less fairly high, we may state that the survey of the world's zoological, botanical, and mineralogical resources is still extraordinarily imperfect. We can also say that the description of soils and their potentialities in the greater part of

<sup>1</sup> Assistant Secretary-General, Department of Social Affairs, United Nations.

the inhabited areas has still to be compiled. We may therefore suppose that within the underdeveloped countries, in the strata of their mountains and their plains, there lie buried and dormant natural resources and riches of which the knowledge and exploitation are of paramount concern to those countries and to the whole of mankind. I am well aware that in all countries, even in those which are little developed, there exist more or less important governmental agencies which, with various and usually very insufficient means, pursue scientific research into these problems. But nobody can deny that in immense territories the results obtained are still mediocre, that research progresses extremely slowly, and that vigorous international action could be taken in this domain to very great advantage. It could consist either of helping national agencies and encouraging their activities, or in undertaking directly, after consultation and agreement with Governments, those indispensable studies and researches to which neither individual nor national interest has yet devoted as much attention as the scope of the problem demands.

This raises a special issue: the general problem, which has been laid before the United Nations, of creating international research laboratories. It is unfortunately true that the United Nations is more preoccupied with the immediate problems of peace, security, and reconstruction than with the problems of a more remote future. But it seems to me that no rash or visionary imagination is needed to picture humanity, assembled in the international body of the United Nations, making itself responsible, either alone or through one or more specialized agencies, for investigation on a world-wide scale, beginning with the underdeveloped regions and directed towards a survey of the botanical, zoological, and mineralogical resources and of the characteristics of soils in the various territories. I know there would have to be laboratories, a school of prospecting, and international teams of scientific prospectors. I know that it is a huge undertaking; but not, I think, an excessively large one if we reflect on the immense hopes which the peoples of

the world have placed in the United Nations, and on the rapid progress which the underdeveloped countries could make if the natural resources dormant in their territories were exploited.

You will perhaps be surprised that I have given this inventory of natural resources first place, seeing that the rise of the underdeveloped countries will depend in large part on the physical, intellectual, and moral resources which they possess and on the effort that is made to free all the potentialities of the human factor in those territories.

If I have spoken first of these material natural resources, and of the need for investigating and surveying them, it is because I see, in this realm of international action devoted to cooperation among nations, a real hiatus, whereas in the realm of the human factor the United Nations, through its specialized agencies, has already taken some action (albeit as yet modest) to which we must wish every success. In the fields of health, labour, nutrition, education, science, and culture the United Nations is endeavouring to raise the physical powers and intellectual resources of men everywhere in the world. Let us hope that all these efforts will be coordinated and organized in a powerful movement for the common good.

I should like to say one more word, in the hope that I shall not exceed the limits permitted to an international civil servant. In this field of activity the countries which by reason of geographical or historical circumstances have been able to make great progress and can show a prodigious record of development have a great responsibility to humanity. The power of the United Nations does not lie in its own strength; it derives from the strength of its Members; and it is to be hoped that this action undertaken by the highly-developed countries to help the less favoured countries will be carried out through the United Nations. The danger for international cooperation is not that the United Nations will encounter difficult problems such as that which you are discussing, but that these problems will be dealt with outside the United Nations as independent elements of national policy. What we

must hope is that the Member States will commit themselves to the United Nations, and that in all international action they will deploy their physical and moral efforts through the United Nations. This is the hope with which I conclude and I trust it will meet with your agreement.

## INTERNATIONAL APPROACHES TO ECONOMIC DEVELOPMENT OF UNDEVELOPED AREAS

DAVID WEINTRAUB<sup>1</sup>

THE peace aims of the United Nations and their determination, in the opening words of the United Nations Charter, "to save succeeding generations from the scourge of war" have prompted them to adopt a new approach to problems of economic prosperity and social progress—an approach which has as its objective an expanding and integrated world economy. To achieve that objective the United Nations created "international machinery for the promotion of the economic and social advancement of all peoples."

The Economic and Social Council, consisting of representatives of eighteen governments, can make studies and report on matters in its field of competence, it can make recommendations to members of the United Nations and to the General Assembly, it can create Commissions to assist it in its work, it can call international conferences on economic matters of international importance, and it can draft international conventions.

One commission created by the Council is the Economic and Employment Commission. A major function of the Commission is the "promotion of economic development and progress, with special regard to the problems of less developed areas."

The Economic and Social Council also directed the Economic and Employment Commission to establish two Sub-Commissions, one of them on economic development. The function of this Sub-Commission is "to study and advise the Commission on the principles and problems of long-term economic development with particular attention to the inadequately developed parts of the world, having the objectives of:

1. Promoting the fullest and most effective utilization of internal resources, labour and capital.

<sup>1</sup> Director, Division of Economic Stability and Development, Department of Economic Affairs, United Nations.

2. Raising the level of consumption.
3. Studying the effects of industrialization and changes of a technological order upon the world economic situation.

*Integration and Interdependence.* The breadth of the new international approach to the question of economic development is perhaps best illustrated by the following statement which was made by the Economic and Employment Commission in its report on its First Session: "The greatest and most lasting improvements of the standard of living of the less developed countries or areas are likely to flow from projects which are integral parts of long-term and balanced programs of development. Such programs should embrace not only the economic aspects of development but should include the social, scientific, health, educational, and cultural aspects of community life, and every member country should ensure, so far as possible, that all of these aspects are comprised in an harmonious programme of development."

Having in mind, however, that "even small beginnings could be important as opening the way to larger undertakings in the future," the Commission, during its Second Session, added that "even small initial projects should be developed without waiting until a particular development can be included in a fully comprehensive project, the adequate formulation of which may require considerable time."

The stress that is laid on the promotion of economic advancement of the less-developed countries is itself without precedent. Likewise new is the emphasis on the interdependence of the several economic, social, and cultural objectives to be pursued under international auspices, and on the economic interdependence of the nations of the world. Every nation is committed, as a matter of international obligation, to the promotion of the several economic objectives within its own boundaries and to cooperation with the other nations to achieve similar world-wide ends. The underlying assumption is that prosperity is indivisible.

The "conditions of economic and social progress" which members of the United Nations, individually and jointly, are committed to promote include a set of interrelated economic objectives, namely reconstruction of war-devastated areas, economic stability and full employment, and economic development. Wherever underdeveloped countries have been the victims of war devastation, as for example in the Far East or in South-eastern Europe, the objectives of reconstruction and development are likely to merge. Neither is segregation of objectives feasible in those underdeveloped areas—as in Latin America, for example—which though not physically devastated by the war, have suffered from the economic dislocations caused by it. Fluctuations in production and employment and in the flow of incomes in the industrially advanced countries do, of course, affect vitally the underdeveloped countries and the world at large. And the objective of economic development of underdeveloped areas reflects a realization that living standards should be very much higher and that the achievement of such standards is a matter of international concern.

Of course, the prevailing standards of living, even in the most advanced countries, are not as high as the possibilities afforded by the technologies they have at their disposal; there are no countries that might be regarded as fully developed. The heaviest and most urgent task of economic development is, however, in the least developed countries, those that lag far behind the few industrialized countries with regard both to technological levels and to standards of living.

*Self-Determination within International Cooperation.* The new international approach to the economic problems of the underdeveloped countries is still in process of evolution, both with regard to their domestic development policies and programs and to international actions and policies in relation to them.

As regards domestic development of policies and programs, the initiative rests entirely with the individual nations as to the pattern of their economic development, its type, scope and pace.

United Nations agencies can enter the field only if and when requested and then only on terms acceptable to the individual country. Article 7 of Chapter I of the United Nations Charter specifically provides that nothing in the Charter "shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state."

However, the very opportunities for discussion of economic development problems within the organs and agencies of the United Nations should serve to stimulate development and to perfect the many development plans already adopted. Contributions to economic development may well be expected to come, for example, from such international gatherings as the one on Tropical Housing Problems, to be held under United Nations auspices next month in Venezuela, or the United Nations Conference on the Conservation and Utilization of Resources, scheduled for early in 1949.

*Technical Assistance.* In addition, the terms of reference of the economic agencies of the United Nations provide that, if requested by member countries, they are to give technical advice and assistance in development matters whenever that is feasible within their budgets. Requests have been coming in. The Food and Agriculture Organization has sent missions to Greece and to Poland to assist in making economic surveys and has been asked to send similar missions to other countries. The International Labour Organization recently sent advisers on various aspects of labor problems and social security to China, Iran, Egypt and Colombia. Direct assistance on monetary and financial reform has been extended to a number of requesting countries by the International Monetary Fund, and the Fiscal Division of the Secretariat of the United Nations has provided assistance to Venezuela on fiscal and taxation matters. This function of advice and assistance is certain to expand.

International dissemination of technological knowledge should prove another activity of major importance. Provisions are contemplated for the training of technical personnel in less-developed countries, possibly with the aid of international

fellowships similar to those instituted by the World Health Organization; and the promotion of technological research along lines suited to the development requirements of the less-developed countries is beginning to appear as another and new task.

These activities of the United Nations are not of a routine nature since technological knowledge cannot be viewed as an article available for export from the more advanced countries and readily usable by others. There is an infinite variety of situations in the less-developed countries with regard to demographic conditions, natural resources, levels of economic development, cultural standards, and proposed patterns of development. This implies a considerable variety in the types of technology required. In order to become transferable the technologies of the more advanced countries may have to undergo considerable adaptation. In fact, technological research as it has developed in the highly industrialized countries, where it was largely geared to the requirements of mass production, may not prove to be usable at all in the initial development programs of the least-developed areas, those at the very bottom of the scale. There it may prove necessary to stress the promotion of technological improvements designed to serve very small local markets at least until the growth of transportation permits further rationalization. In the service of such areas, which comprise the bulk of the world's population, a re-orientation of technological research along new lines is required.

*Creation of Favorable Atmosphere.* The assistance which can be rendered by international organizations to underdeveloped countries will vary with the degree of their development. With respect to the least developed countries, the creation of an economic atmosphere favorable for development calls for international assistance to national governmental efforts towards

1. The eradication of illiteracy and disease.
2. The training of technical personnel needed for economic development.
3. The evaluation of the existing private and governmental

economic apparatus for the production and distribution of the goods and services required to raise the consumption level of their populations, for the promotion of industrialization, and for the formation and domestic investment of capital.

4. The creation of the institutional framework for such bodies and services as may be needed to promote economic development in the interest of their own people.

With respect to underdeveloped countries which have already made considerable progress in the direction of economic development, the promotion of further economic development calls for international measures for pooling the experience in the field of economic development in a manner which would enable the United Nations to serve as a center for

1. The collection of information.
2. The dissemination of the most suitable techniques of organization and methods of planning economic development.
3. Other technical advice with a view to promoting concerted measures of mutual assistance and international collaboration.

*Special Trade Measures.* The economic development of less-developed countries also gives rise to certain special problems in international economic relations. Particularly in the early stages, development may involve special provisions for the promotion, direction, and regulation of foreign trade as well as of domestic production and prices.

The progress already achieved along the lines of developing a new international attitude is illustrated by the gradual evolution of the Draft Charter of the proposed International Trade Organization. In the earliest draft, of November 1945, the approach was practically entirely from the standpoint of the countries which have already had an important part in international trade. The stress was on the elimination of trade restrictions as the main obstacle to the growth of international trade. Since then, there have been several revisions of the Draft Charter broadening the scope of the functions of the proposed International Trade Organization with respect to the economic

development of the underdeveloped countries. In the place of "infant industries" as a special case justifying protective measures there is now explicit recognition of youthful and nascent economies calling for special measures of promotion in the international interest.

*Regional Arrangements.* International cooperation for the economic development of less-developed countries must not, however, be visualized exclusively in the form of outside aid, extended by international organizations and highly developed industrialized countries. There is plenty of room for self-help and for mutual aid among groups of less-developed countries in which economic development may be either along similar or complementary lines. The several regional economic agencies of the United Nations are likely to play a leading part in this. There are now two in operation, the Economic Commission for Europe and the Economic Commission for Asia and the Far East. Similar commissions have been proposed for Latin America and for the Middle East. All those regional agencies will have within their jurisdiction a number of underdeveloped countries, and some of them will deal to an overwhelming extent with the requirements of such countries. They are likely to have an important part in regional arrangements for the promotion and planning of that economic and social progress and development to which all Members of the United Nations have pledged themselves.

*Financial Problems.* No discussion of international action in the field of economic development of undeveloped countries can fail to mention their crucial needs for capital and capital goods from abroad. But I shall no more than mention it because I understand that Mr. Rist of the International Bank for Reconstruction and Development will speak to you in some detail on this matter. I do, however, want to point out that although a large part of the costs of development will have to be financed by foreign loans or by the foreign exchange balances accumulated by countries like India and many Latin American countries, it is also true that a substantial part of the cost will

have to be financed at home. This aspect of the development problem is bound to create a certain amount of inflationary pressure for which appropriate precautionary steps will have to be taken by the countries involved. Unless direct taxation is increased in step with the increase in the domestic financing of the development programs, the inflationary effect is likely to be rather severe. But even if the domestic development expenditures are entirely offset by direct taxation, the problem of inflation is not likely to be avoided entirely. Direct taxation, especially in underdeveloped countries, can never be expected to eliminate the inflationary pressures on food prices because such direct taxation is likely to affect mainly the higher income groups, whose demand for food would not thereby be reduced, whereas even slight increases in income of the lowest income groups are bound to increase their demand for food almost directly. With the exception of such underdeveloped countries as are major exporters of a variety of foodstuffs, for example the Argentine, the economic development of most underdeveloped countries is therefore likely to involve the import of food, if inflation is to be minimized, at least in the early phases of development and until such time as food production can be increased in the underdeveloped countries themselves.

*Demographic Problems.* Finally, I should like to make a brief comment concerning demographic questions which have been raised in connection with development. It is no doubt true that in the early phases of the economic development of a country the death rate will decline more rapidly than the birth rate, that every newly developing country is therefore likely to experience a rather rapid population increase, and that this increase is certain to create problems which, in those undeveloped countries which are already thickly populated, may be difficult to solve. It should, however, be kept in mind that one of the aspects of the new international approach to the development question is that it is an *integrated* approach and that it is deliberately intended to raise the standard of living of the peoples of the undeveloped countries. Those peoples are moving, consciously, by economic,

social, cultural, political and every other means, to achieve that objective of a higher standard of living, as they understand that standard. I believe that so long as they move, as peoples, to achieve their own social objective, in contrast to the usual objectives of past colonial development, their evolving problems and solutions are bound to include the demographic aspects just as naturally as they will include the educational, health and other aspects of an integrated approach to development. I doubt that there can be a general solution to those problems; it will always have to be specific to the specific situation. And it is one of the tasks of the international organizations to help the undeveloped countries solve those problems by technical assistance in the planning and execution of their development programs and by keeping in the forefront the idea of integration on a community and national as well as on the international level.

## FINANCIAL ASPECTS OF INTERNATIONAL APPROACHES TO PROBLEMS OF UNDEVELOPED AREAS

LEONARD B. RIST<sup>1</sup>

I ASSUME the economic aspects properly said will be covered by the other speakers and I expect therefore to confine myself to the financial problems involved in any consideration on the development countries. As you may expect, I am speaking purely in my personal capacity and not for the organization to which I belong. Furthermore, I do not intend to bring you solutions, but only to describe to you the problems as they appear to me.

There are several aspects which may require some thoughts: one of them is, obviously, the internal financial system; another is the financial relations with the external world in its two forms —direct investment and loan capital. We shall attempt to deal with them in turn, while underlining their close relationship.

### I. INTERNAL FINANCIAL PROBLEMS

Financial difficulties may have two aspects. They may be due to underlying economic conditions and be thus the effect or symptom rather than the cause. In other cases they may, on the contrary, be rather the cause than the effect.

Roughly speaking, there are five groups of economically undeveloped areas: Eastern Europe, Middle East, Far East, Colonial Territories, and Latin America.

The first three are characterized by overpopulation. Colonial Territories present special problems. Latin America, however, is a special case for at least two reasons: (a) it is underpopulated rather than overpopulated, and further industrial developments may well have to be linked with some immigration; (b) it may well be the only case where financial troubles are sometimes the cause rather than the effect of economic difficulties. Since these

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financial troubles are a deterrent to economic development, any action likely to cure them might be said to be in itself directly productive.

All groups are very interesting and deserve individual description, but a good deal has already been published on the other groups. While Latin America is not only a special case, but also an easier and simpler one, my paper will deal essentially with it.

It is an almost constant fact that in all countries of Latin America internal credits have never developed to any considerable extent except, lately, in the Argentine. Self-financing is the exception. They suffer from chronic inflationary tendencies in spite of the fact that they have been spared by World War I and World War II. It is easy enough to ascribe these features to political unrest, but it should not be forgotten that political disturbances are just as much a consequence as a cause of low standard of living, social inequalities, and unsettled economic conditions. We can, therefore, speak of the financial structure of these countries without referring any further to the intricacies of their political life.

Inflation in South America has several causes: one of them, most often referred to, is imprudent budget practices, including heavy investment or military expenditures and inflexible taxation systems. While these reasons are undoubtedly of major importance, I venture to doubt whether they have the same significance everywhere and whether they are not intimately tied up with social structures which could only be changed by a general improvement in the standard of life.

Other causes of inflation seem to me nearly as important: one of them is the great reliance on exports which during the war especially allowed for the creation in South America countries generally of a large amount of purchasing power. Failing appropriate sterilization policies, it could not be offset by corresponding imports. The external sign of this was an accumulation of foreign exchange which is now being rapidly spent.

Another cause of inflation is probably the development policy itself, whatever the source of funds. The mere fact that internal

currency is devoted to building of productive installation, including housing, means that the consumer's income is enlarged without corresponding increase in the amount of consumers goods placed at his disposal. To the extent that the consumer actually saves a corresponding amount, there is provided both an escape for consumer's outlay and a source for new investment funds. To the extent, however, that such savings do not take place, a pressure on prices of consumers' goods ensues. Lacking a sufficient supply of funds, the government or the entrepreneurs have to call on bank credits, i.e., mostly Central Bank credits, for financing new investments. In other words, an investment policy carried out at a rate which is quicker than the rate of accumulation of savings, brings about both inflationary pressure on prices and monetary expansion.

This short analysis is not intended to underrate the importance of budgetary and monetary practices as a cause of the financial troubles of development countries, especially in South America. It is merely intended to bring home the fact that since development by itself, like any other investment policy, may have inflationary consequences, internal fiscal policies are of the greatest importance. The dilemma is, of course, that conservative fiscal policies may, for a little while at least, slow down the development policies which, for social or political reasons, the nation wishes to expand rapidly. The question is once more one of measure.

It should not be overlooked that in many cases savings are available locally for certain types of investments, provided the rate of return is sufficiently high. It is another feature of the development countries that in view of the numerous profitable ventures that are open to private initiative, the rates of interest are naturally relatively high, because the normal form of risk is equity rather than fixed income investment. Thus, one of the most popular forms of investment is in real estate, because of its speculative attraction. Here again, a conspicuous exception is to be made for the Argentine where things have been settled enough for a sufficient time. A relatively large market has devel-

oped in mortgage bonds (the famous "Cedulas Hipotecarias").

In some South American countries, the governments have made attempts to direct investments toward the enterprises which seem most attractive for the nation as a whole rather than the most immediately profitable. Such is the purpose of the Fomento Corporaciones and it is well known that in the case of Chile, for instance, the government undertakes the primary financing but expects to sell the equity in the newly-created enterprises to the broad public after having set them in motion.

## II. EXTERNAL FINANCING

I have said before that most development countries were faced with a difficult dilemma: either maintain conservative finance practices or slow down for a while on their development schemes. The obvious way out of this dilemma is import of foreign capital. At first sight, this is a perfect solution: provided with foreign exchange, thanks to the imports of capital, the country can purchase either the equipment needed for its development plans or the consumers goods, the sale of which would restore equilibrium in an inflated market. The ideal is, of course, that the foreigner could bring both his capital and his skill and immigrate, bringing with him his accumulated savings. That is, to an extent, how the United States, Canada, Australia, New Zealand, and South America, itself, have been industrialized or developed, not to speak of the Colonial Territories.

Failing a combination of both capital and skill, import of equity capital is obviously the most natural course. Equity risk is for the foreigner as well as for the nationals the most attractive investment because of the chances of profit. At present, this movement is far from having stopped, and Mr. Stacy May is undoubtedly among those who can speak the most authoritatively of the problems involved.

The forms under which this capital can be solicited are numerous. They range from outright ownership abroad, to participations in local corporations or partnership ventures, but the conditions of exploitation are just as varied. The most

profitable for the outside investor is, of course, the case where all goods extracted or raised on the spot can be sold on his own terms, either internally or especially externally. In other cases, the foreign investor may organize a national establishment and only draw therefrom royalties or fees. Finally, he may limit his demands to the payment of dividends.

The objection to the heavy participation of foreigners in the operation of a country are too well known to be repeated. There have been abuses but on the other hand, it must be realized that retaliations of too stringent a character have a deterrent effect and may completely dry up the influx of foreign capital. Under the auspices of the League of Nations first, of the United Nations now, and possibly, of the I.T.O. at a later stage, efforts are being made and will be made to find satisfactory compromises of a general character.

Loan capital is of a different character. It can flow either to enterprises or to governments. In the first case, there is no difference with a direct equity investment for the purpose of earning dividends, except that repayment of capital is expected; in the second case, the government has the impression that it does away with the danger of foreign interference based on ownership, but at the same time it involves risks which cannot be underrated. In both cases repayment of the principal must be provided over a period. It is, therefore, both more costly and more rigid than direct investment. In times of depression this rigidity may lead to defaults.

The risk to the foreign investor has been stressed often enough and it may not be necessary to comment at length on the debt record of many underdeveloped countries, but one or two points deserve mention. Firstly, most of the debts were incurred during a period of expansion; in other words, they did, to an extent, contribute to the inflationary trends; readjustments during the down slope of the cycle were, therefore, made more difficult. Secondly, the reasons why the debts were incurred were very often tied in directly with the internal financial situation. Lacking internal credits, many governments found it actually easier

to borrow abroad rather than internally, sometimes because there was no capital available internally, sometimes merely because the rate of interest abroad appeared more attractive than the rate of interest on the spot. The delusive character of such a reasoning is clear enough. It could also be said that the absence of an internal public debt tradition may, in isolated cases, have been responsible for the easy acceptance of the default status or for its persistence during the depression years.

However uncautious some of the countries may have been in borrowing, however uncautious some investors may have been in lending, the need for loan capital still subsists. It cannot be assumed that in the near future the development countries will have restored their internal financial situation and stabilized their external finances to an extent sufficient for allowing them to finance their own needs. It can also not be expected that private capital will be able to flow in amounts sufficient to cover *not only* the cost of building one profitable enterprise, but the cost of supplying its site with the underlying facilities which are indispensable: transportation, public utilities, etc. Finally, foreign private capital cannot be expected to devote itself to improving the standard of life and the stability of the economies by improving the conditions of agriculture which remains one of the most important and perhaps often underrated activity in these areas. The rate of return of investment in public utilities, land reclamations, modernization of agricultural methods can rarely be estimated in accounting terms. They involve large amounts subject to concerted allocations, and can only be fruitful under cooperative or government guidance. Their remuneration is in the form of easier standard of life, better tax returns, greater economic stability.

In view of these fundamental facts, I strongly believe that loans to development countries will continue to be made in the hope that progressively they may reach the stage at which self-financing will not be an empty word.

## SOCIAL ASPECTS OF RURAL INDUSTRIALIZATION

SAMUEL H. THOMPSON<sup>1</sup>

I AM speaking in a personal capacity as an engineer engaged by FAO for a study of ways to promote and maintain rural industrialization—a study which has just been completed, so recently, in fact, that the report is not yet in final form. Therefore I cannot speak as to the policies and activities of FAO in this respect.

FAO has realized from its very beginning in 1945 that agriculture can be healthy only in a context in which the rest of society and the rest of the whole world is healthy. Agricultural people can substantially improve and maintain their conditions only if the conditions of the whole world are expanding and continue in stable expansion.

The purposes of FAO as stated in its charter are to rationalize agricultural production, to stabilize price relationships, and to improve the conditions of living of agricultural populations. That is such a wide frame of reference that it may be considered appropriate for FAO to interest itself in the entire range of economic and social development—with particular reference to the problems of underdeveloped areas, most but not all of which are agricultural areas.

Three conclusions of mine in respect to rural industrialization may be worthy of attention here. First, the problem is not industrialization; at least, the term "industrialization" in any narrow sense does not describe the answer, certainly not if it is undertaken merely for the purpose of providing temporary payrolls. Such a limited objective will require continuing transfusions of some form of outside assistance, and so far it has never been made a part of the culture of the people of the area.

One-crop developments in agriculture have usually suffered the same type of final failure or social inadequacy. Wheat,

<sup>1</sup> Formerly, Project Leader, Rural Industries Project, Food and Agriculture Organization of the United Nations.

sugar, cotton, rubber—none of these highly specialized cropping operations has been successful in constructing a balanced and viable local society. They have resembled industrial operations placed in rural areas merely for the purpose of providing employment or exploiting low-wage rates or local resources for outside profit, and not soundly based on the resources and cultures and needs of the people of those regions.

The proposition I have just cited involves much of the material which has been discussed this morning, including particularly Dr. Laugier's comments on the need of continuing research of many kinds, the application of technology to particular resources, and so on.

My second comment is that the problem of economic development in backward areas is more properly expressed as being the application of modern technology in suitable form and in assimilable doses in a certain area, by the people of that area for their own increasing satisfaction.

Experience seems to underscore the lesson that technology must be embraced by the people of an area, particularly of an underdeveloped area, in their own terms; and that this is so regardless of how primitive their levels of culture, education, and technology may be at the beginning of a program of improvement.

A third conclusion is that if we are sincere in our intention to strengthen, rather than to weaken, the ability of a given population to pull itself up by its own bootstraps and then maintain its position without continued transfusions and help from outside—then as engineers, or sociologists, or anthropologists we must necessarily begin with existing levels of education and culture, down to and including wooden plows and simple hand tools.

Beginning even at primitive levels, it has been found possible in many places to institute a chain reaction type of development. Education in simple hand tools and methods of applying human effort better to agricultural and other resources, some not even involving tools, has proceeded from

these hand techniques to the simplest machines; then on to better tools and better machines, then to the application of non-muscular power, and finally to the use of electricity and the whole range of procedures and processes of automatic equipment and so on, which we use for human satisfaction (presumably) in more highly-developed countries.

By the way, I was delighted to hear someone comment this morning that there is no completely developed country. To my knowledge there is no country, including the United States, which cannot learn from other countries in these matters.

So it seems to me not only incorrect but misleading to define technology as meaning strictly "levels of technological development reached in highly industrialized areas." It must be more socially useful to realize that "technology" in underdeveloped areas is the level actually reached in the application of modern technology as a whole to the resources of backward areas in terms of their own traditions and cultures and even their habits, family patterns, and desires.

I am impressed with the idea that surveys and plans for backward areas should be made by *teams* of technologists, including economists, engineers, sociologists, anthropologists, and no doubt others.

The Mexican Government has been very successful recently with "cultural missions," as they are called, which are sent to the most backward mountain villages of the country. Such a mission might include an agricultural economist, specializing in the resources of that region, a construction engineer, a mechanic skilled in the simplest type of operation such as that of the village blacksmith shop, a home economist, a sanitation expert, and a musical director.

At first glance that last inclusion—the musical director—may appear to be curious; but at second glance it is highly appropriate and it has been very successful. The Mexican villagers want to sing. Music is just as much a part of their standard of life, or rather of living, as food.

If we begin at existing levels, primitive as they may be,

then I think we may find it possible, and it is being found possible, to blend with their existing cultures and habits a suitable amount and kind of what we call "modern technology" which they can make their own and which they can then continue to adapt and increase and improve just as we have done.

I do not think it needs to take as long as might be assumed. Two or three years might accomplish amazing results, even with the most backward peoples. Bear in mind that in almost any population you will find highly developed levels of manual dexterity and skills, perhaps only in wood carving but real skills just the same. Almost everywhere there is a desire for leisure, and that is an indispensable requirement for the continuing possibility of better standards of life. If we do not find that, the population has become so submerged that it has lost the idea and the hope of improvement.

For a comment or two on the very thoughtful discussion in this meeting so far, this kind of approach means that the actual levels of life or standards of living that exist in a given area are not of primary importance, above the starvation level. What is essential is the principle of growth and improvement and confidence in the hearts of the people that it will continue.

I am inclined to suggest that we think and talk more in terms of standards of life, rather than of living, recognizing clearly, although imperfectly, that the standards of life with which we may be dealing include values which cannot be developed artificially by any means now known and cannot be measured in terms of statistical standards of living.

Therefore, we do not have to have completely integrated plans. I am sure the previous speakers were not suggesting we must have perfect plans. We are "fresh out" of perfect plans, even in straight economic or engineering terms, for the most desirable economic pattern for a given area. There are many desirable patterns and we do not know precisely what the status will be ten years from now in any part of the world.

We do have to have a good idea of the *directions* of movement in broad detail, to provide the necessary basis for the

confidence in continued improvement which (if I am correct) is the essential element. Research, of course, as Dr. Laugier underlined, is a continuing requirement for the whole world if we are to maintain the growth and improvement which is just as important in the highly-developed countries as in the backward countries. There is only one way to maintain this growth and improvement and that is through continued research and continued application of research.

With respect to the more underdeveloped areas, let us not underestimate the vast opportunities immediately at hand for the application of *known* methods, even published methods, which are available in different parts of the world but which have not been brought together and translated linguistically and technically in a usable form for given backward conditions.

Similarly, there is a still greater field—I am speaking now as an engineer—for immediate development in terms of the next few years or even months, at very low cost, in the translation of modern engineering and technological processes into small-scale operations and operations specialized for application to given local resources. All over the world there are existing laboratories and experiment stations, not nearly enough of them, but enough to produce results that would amaze any of us in a matter of not many months, if they could apply their known methods and train people in such application. Research people are available, at least in some places, and astonishing accomplishments might be made if their efforts were directed properly toward the improvement of existing agricultural and domestic procedures among their own backward groups.

## HEALTH ASPECTS OF INTERNATIONAL APPROACHES TO PROBLEMS OF UNDEVELOPED AREAS

WILLIAM P. FORREST, D.P.H.<sup>1</sup>

**S**O far this round-table discussion has assumed a character which I must confess I failed to foresee. Therefore, please forgive me if I try to give rather more weight to some aspects while only lightly touching upon others, which I had deemed more relevant.

I feel I should start with some definitions. Professor Cathcart, the pioneer nutritionist, always taught that this should be done no matter how carefully the subject matter already had been defined.

First then, I would like to define "health." The Preamble to the Constitution of the World Health Organization, which is the international specialized agency of the United Nations charged with responsibility for health, says:

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.<sup>2</sup>

This international definition will satisfy any national ideas, no matter how advanced. I shall describe something of the evolution of this concept of health, and explain the significance of it, the other relevant aspects of the Constitution of WHO, and the potentialities of today as they stand ready for mobilization for better health in undeveloped areas.

The definition of "undeveloped areas" is not so easy. Because I belong to that Commonwealth which formerly rejoiced in the somewhat uneasy possession, directly or indirectly, of a major part of the "undeveloped areas" I may be forgiven for having held the belief that, for the present and for some considerable time to come, such areas are unlikely to suffer from "overpopu-

<sup>1</sup> Assistant Director, Headquarters Office, World Health Organization.

<sup>2</sup> Constitution of the World Health Organization, New York, July 22, 1946, Preamble, p. 3.

lation." If properly planned development is carried out, the question of overpopulation seems even more remote. However, I may have been mistaken in my estimates, but I believe I am right in saying that history has so far shown that rising standards of living are always accompanied by declining birth rates.

Before discussing any specific health problems of undeveloped areas, it is desirable to explore the route by which we have arrived at our present attitudes towards health as seen nationally and internationally. The evolution of an international attitude to health was a prime prerequisite to the conception of the WHO. I shall endeavor to trace this evolution by a short historical analysis, in the course of which process there should emerge a picture of the philosophy underlying the WHO.

If this story of the gradual development of ideas on public health be traced out in any average national context, one clearly sees several successive but necessarily overlapping phases of technical development with their attendant and resultant professional and public attitudes.

First, there was the steady improvement in general sanitation, water and food supplies, housing, and facilities for the isolation of communicable diseases. The day had yet to come when isolation hospitals were to become places for effective treatment of sufferers rather than for their isolation from the public. This phase might well be described as the Phase of Fear, and more than one cynic has remarked that cholera was then the best friend of the Public Health Officers.

Next came the phase of true preventive medicine, with the gradual growth of satisfactory techniques in bacteriology, immunology (vaccines and sera), epidemiology and vital statistics. Here also we find the first demand for preventive services to look after the health of school children, certain classes of workers, mothers and children. The rise of services for the tuberculous is a good example of ideas in this phase.

Then, and partly concurrently, came the very rapid advances in medicine, released from the bondage of its empiricist limitations, and free to develop on a comparatively scientific basis.

This has brought us to the present quite remarkable pitch of technical and pharmacological competence in our dealings with disease, infectious or noninfectious. The potentialities of these developments for human welfare are enormous, and this phase is well reflected in the world-wide knowledge of some of the significance of such words as "Sulfas," "D.D.T.," "Penicillin." It should be realized that this stage is in its youth and large-scale international research would vastly expand it.

Latterly, we have seen a remarkably rapid spread of a realization by the medical profession and the public alike, of the full value of the social viewpoint to all aspects of health. As a result, the enlightened practitioner in every field of health now sees his responsibilities commence before disease, whether individual or communal, physical or mental, has manifested itself. He sees his responsibilities cease only after the individual or community is once again living in a manner which can be regarded as normal.

All this progress, technical and philosophical, implies a different and much more profound concept of man's environment as a factor affecting his health, and we see this in the establishment of chairs of Child Health, Industrial Health, and Social Medicine. Man's environment can no longer be lightly discussed in terms of units of plumbing or so many persons per square mile.

During this stage we have also seen the rise of scientific nutrition to a foremost place among the manifold responsibilities of progressive health administrations. The part played by the Milbank Memorial Fund in pioneering this remarkable innovation is not sufficiently recognized.

We are all fairly well aware of developments of this nature. We may use slightly different terminologies, or we may even have differing ideas about the scope or the chronology of the phases of health work, but I am sure we will agree that among that small fraction of the world's population which inhabits developed areas, any failure by an administration to provide health services broadly in accord with the above-mentioned

flow of ideas would certainly evoke immediate disapproval from the public and the leaders of the medical profession. But I wonder if we are really aware that only about 12 per cent of the world's population is receiving any large proportion of such services?<sup>3</sup>

This leads us to examine, in the same way, the growth of an international conscience on health matters. We find that it has followed substantially the same pattern. It was to be expected that progress would not be so rapid as it was in the most progressive national scenes. It was natural that more emphasis was placed on epidemiology, quarantine, statistics, certain technical problems (such as narcotic drugs), and, latterly, some of the social aspects of medicine, to the relative neglect of treatment. But the pattern generally was the same. The gradual realization of the potentialities of the scientific and social techniques available to the national health administrations, allied to the concurrently and consequently developing conscience concerning the underprivileged, led to the broad, socially defensible, humanitarian viewpoint so ably stated in the Constitution of the WHO, where the only intolerance expressed is for failure to apply the measures available.

It is, however, interesting to note that the Phase of Fear, now largely departed from the public health scene in reasonably advanced communities, still retains a foothold in the Preamble of the Constitution of the WHO which says, after the definition of health:

Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.<sup>4</sup>

But this is but a last glimpse of the Lazarette and the Quarantine Hulk and the true attitude is clearly shown in the remainder of the Preamble:

The enjoyment of the highest attainable standard of health

<sup>3</sup> From publications of the Health Section of the League of Nations.

<sup>4</sup> Constitution of the WHO, July 22, 1946, p. 3.

is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.

The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and States.

The achievement of any State in the promotion and protection of health is of value to all.

Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.

The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.

Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.

Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures.<sup>5</sup>

#### and the Objective:

The objective of the World Health Organization . . . shall be the attainment by all peoples of the highest possible level of health.<sup>6</sup>

Before drawing the necessary parallels with the movements of international conscience which produced the United Nations itself, it is convenient to mention some of the viewpoints which are the logical results of the workings of this conscience in the modern medical officer. With particular reference to the problems of undeveloped areas he is likely to say:

1. From now on, for all practical purposes, if humanity so decides, it can rid itself entirely of historic scourges such as typhus, malaria, venereal disease, smallpox, and plague. A further series of diseases including cholera, enteric and others can be deprived of most of their power to hold men at their mercy.

<sup>5</sup> *Ibid.*, p. 3.

<sup>6</sup> *Ibid.*, p. 3.

2. Perhaps the most widespread and serious disease affecting mankind—with the possible exception of some of the less spectacular psychoses—is malnutrition. It predisposes to an impressive array of diseases and ill-health. It is surely quite intolerable that malnutrition shall be permitted to continue to prejudice the health of at least 85 per cent of the population of the globe.

3. The present state of partial sickness which passes for health in most of the inhabitants of undeveloped areas can be changed to a genuine, positive state of health, with the corresponding improvements in productivity and self-respect. In passing—it is insufficiently realized that the apathy and ne'er-do-well character attributed to so many dwellers in undeveloped areas is, in fact, due to malaria, hookworm infestation, malnutrition, tuberculosis, or all of these, often allied with the demoralization produced by exploitation.

4. In the light of present-day knowledge and the results of past experience, when an area is to be developed, the health officer and his sanitary engineer, assisted perhaps by a psychiatrist, should move in on the heels of the prospector, and not along with the fever van and the mortician, after the damage has been started, as has been all too frequently the rule. With the mechanism available today for integrated approach to development, no failures to make use of this technique can be tolerated.

5. Many areas which might readily be regarded as unsuitable for development because of some health hazard to man or his flocks, can now be made perfectly healthy if the health work is coordinated in the commencement into the plans for development. A good example is the Ground-Nuts plan for development of large tracts of East Africa as an intensive producer of the scarce edible oils. These areas are infested with Tsetse fly. The clearance of forests will largely remove this risk. This scheme is under a so-called Crown Company in which the Government, the natives and Lever Bros. are partners. All health work and relationships with natives are the responsibility of Professor Hargreaves, the well-known psychiatrist.

These sample statements will give some idea of the attitudes resulting from modern philosophy on health matters as they will be shown by the health officers of today. There can be no

doubt these officers will insist upon being accorded a full voice in any development of undeveloped areas.

The upsurge of international conscience, the health manifestations of which are to be found in the Constitution of the WHO, had its main political fruit in the setting up of the United Nations. That section of this conscience, which showed itself as abhorrence of past inequities in the treatment of the inhabitants of undeveloped areas, resulted in the establishment of many special organs of the United Nations designed to prevent future recurrence of past errors, to make full and co-ordinated use of the technical and social knowledge now available or, at the minimum, to give due and authoritative international publicity to such matters.

Mr. Benson of the U.N. Secretariat, Trusteeship Division, will be able to tell you in detail about the Trusteeship Council, which deals with trust and mandated territories (population about 14,000,000) and the Special Committee on Transmission of Information under Resolution 73 (e) of the Charter, which concerns itself with colonies (about 180,000,000 population)<sup>7</sup>. These may be expected to act as formidable sounding boards, and I am sure their frequently lengthy deliberations will be for the ultimate welfare of those who dwell in certain undeveloped areas. However, we should not forget that only a proportion of dwellers in undeveloped areas come within the purview of these organs of the U.N. By far the largest numbers live in undeveloped areas which are sovereign states. International publicity for conditions in those areas does not appear likely to be quite so effective.

Mr. Weintraub has described the many economic commissions and conferences, central and regional, of the United Nations which will soon be meeting all over the world, in implementation of the promise of the Charter that development shall no longer go unplanned.

It should be pointed out that these organs of the U.N. are

<sup>7</sup> Information supplied by the United Nations Secretariat—the population sizes are only estimates and probably err on the low side.

basically technical advisers, consultants, "prodders," and publicists. There is no doubt that their best results will be in raising the standards regarded as attainable in their respective fields, throughout the world.

The specialized agencies of the U.N., of which the WHO is one, are in a different category but they are in the closest possible relationship with these various organs of the U.N.; are called upon by the delegates to commissions, the Secretariat, and others, for advice and information; and will certainly be called upon for action within their fields of special competence.

#### HOW IS THIS RELATIONSHIP EXPRESSED IN PRACTICE?

Chapter II of the Constitution of the WHO, which states its functions, among a great many other statements, directed it

- a. to act as the directing and co-ordinating authority on international health work;
- b. to establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate;
- c. to assist Governments, upon request, in strengthening health services;
- d. to furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments;
- e. to provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
- g. to stimulate and advance work to eradicate epidemic, endemic, and other diseases;
- i. to promote, in cooperation with other specialized agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions, and other aspects of environmental hygiene;
- j. to promote cooperation among scientific and professional groups which contribute to the advancement of health;

- n. to promote and conduct research in the field of health;
- o. to promote improved standards of teaching and training in the health, medical, and related professions;
- p. to study and report on, in cooperation with other specialized agencies where necessary, administrative and social techniques affecting public health and medical care from preventive and curative points of view, including hospital services and social security;
- q. to provide information, counsel and assistance in the field of health;
- r. to assist in developing an informed public opinion among all peoples on matters of health;\*

And Chapter III, Article 8, states:

Territories or groups of territories which are not responsible for the conduct of their international relations may be admitted as Associate Members by the Health Assembly upon application made on behalf of such territory or group of territories by the Member or other authority having responsibility for their international relations.\*

From this, you will agree, it is fair to say that the WHO has a clear responsibility to peoples in undeveloped areas and its relationships are defined.

It is worthy of note that other specialized agencies have marginal responsibilities in the field of health. For example:

1. International Labor Organization Industrial Medicine
2. Food and Agriculture Organization Rural hygiene, nutritional education
3. United Nations Educational, Scientific and Cultural Organization Medical libraries, natural sciences, and teaching methods in health education

Still others have responsibilities in fields which definitely impinge upon health. For example:

\* Constitution of the WHO, Chapter II, Article 2, p. 4.

\* Constitution of the WHO, Chapter III, Article 8, p. 5.

Trade, Production and Transport;

The Preparatory Commission of the International Trade Organization, International Bank, International Monetary Fund, and the Food and Agricultural Organization

Communications and Transport:

International Civil Aviation Organization, International Telecommunications Union; and Universal Postal Union

Now let us take a few sample health problems which confront all undeveloped areas and see in what way this unprecedented international machinery can be mobilized.

There is now available a considerable fund of national experience in developing health services for undeveloped areas which are part of otherwise developed territories. For example, experience with provision of reasonably good standards of rural medical care in such diverse regions as Denmark, the Highlands and Islands of Scotland, the Prairies of Saskatchewan, and the collective farms of the Soviet Union, has shown that it is usually necessary for the Central Government to intervene. This had long been recognized in the case of environmental hygiene. All the knowledge gained by these countries can now be pooled and mobilized.

One problem which usually proves very intractable is the supply of medical personnel: doctors and auxiliaries. There is vast experience available in this field; from the quite highly developed medical schools of Indo-China to the very elementary native peasant officer who acts a kind of health activator in certain states of South America; from the quite adequately trained "Feldshers" or Assistant Physician Health Educators, so widely used in the U.S.S.R., to the "Native Dressers" used on the Gold Coast of Africa. All this experience must be made available to all administrations along with public exhortation and encouragement for its utilization. The native practitioner, if adequately trained for the job he has to do, will usually prove superior to an imported product of the same standard. I have

been told by Soviet health administrators that their proudest day in their work for backward areas was when they were able to give the people fully trained medical personnel of their own nationality, language, and customs. Then progress was rapid.

I would like to dwell a little on this essential feature of all work in such areas. The people must be educated to self-activation in health and sanitary matters, and this must be done within their own context. The problems of grafting on as much as possible of western hygiene to native medicine, with its background of empiricism, religion, and magic, must be carefully studied. This can best be done by giving the natives of these countries every opportunity to assimilate all that is useful to them by study grants and fellowships.

A further result of international intervention in these matters will surely be an increase in the sense of responsibility of the native official. When he feels that an international body is looking after his interests, that he is no longer entirely a pawn in the game, and when he is able to see the gradual rise in standards of administration that will inevitably follow the full use of the new international machinery, the native official will become a formidable power for good in his own land.

I have said little of the work and possible future of the great international foundations and other non-governmental organizations in the field of health, since this audience will be familiar with their histories. I would like to say that the WHO is specially charged with the working out of satisfactory relationships with them. The Interim Commission has already corresponded with no less than 117 international non-governmental organizations functioning in the field of health. There are probably at least five times this number of active national non-governmental organizations of international significance. Here is an immense fund of international experience and skill which only awaits a suitable catalyst to become available to all. The WHO can act as this catalyst.

So, to sum up:

We have reached a stage in the development of the interna-

tional health conscience without which any integrated development of undeveloped areas could never be regarded as successful.

There is now an international mechanism composed of the organs of the U.N., the specialized agencies, and the non-governmental organizations.

The U.N. disposes of services in all spheres which abut upon or influence health in these areas, so that for the first time we have the opportunity of an integrated approach to the problems of undeveloped areas, of which health is the major constituent. The health aspects can be directed by medical officers, imported and native, trained in the necessary broad social viewpoint, and they will be able to work in collaboration with experts in the fields which Mr. Weintraub has broadly defined in his paper.

These arrangements are unique, and it is to be hoped that they can be financed. It has been said that intelligent expenditure on health projects is the best investment possible, but I do not know whether such a statement would be regarded as valid for action by the Bank or the Fund. I would certainly suggest that any development plan which does not qualify under the health standards suggested above should reasonably be regarded as a bad risk. It would certainly be a bad risk ethically, if not financially.

I do not know whether it is possible to make out a sound financial case for expenditure on health, in terms of figures of increased output and lowered absenteeism of the working population, in undeveloped areas, but I do believe that such a case has been amply demonstrated as sound in highly developed industrial operations. So there is surely no justification whatsoever for insisting that the inhabitants of undeveloped areas shall undergo those trials and sufferings which experience has clearly indicated as unnecessary, undesirable, and financially unsound in the territories which were earlier developed.

## UNDERDEVELOPED AREAS IN SOCIAL EVOLUTIONARY PERSPECTIVE

SIR RAPHAEL CILENTO<sup>1</sup>

I HAVE listened with very great interest to the discussions that developed this morning and this afternoon. There are a great many points that I desired to raise that have already been dealt with effectively. Reference has, however, been made from time to time to underdeveloped territories, and it is in that direction perhaps that my observations may have some value because it has been my privilege to live in several underdeveloped territories. This has enabled me to see at first hand the problems that you are discussing here from the viewpoint of people dwelling in a long and well-established economy.

May I hark back in the first instance to first principles. The problem of civilization is definitely the problem of population. The problem of population is the question of the accessibility or availability of subsistence. To people in a well-ordered civilization this is not readily apparent, but in underdeveloped territories it is constantly obvious.

The course of history is a long series of records of nations or groups of nations that, after a great overgrowth based on new facilities for production and consequential massive increases of population, have struggled to reach an equilibrium where there is a balance between population and subsistence, and their collapse through a failure to defend this state of balance against attacks from within and attacks from without. The attacks from without came from other groups caught up in the up-thrust of productive development at a later stage and unbalanced in one or other direction. At such a critical period the degree of development of the country concerned determines its reaction.

Take, for example, Australia, New Guinea, Oceania, and Japan, with all of which I am familiar. The Australian ab-

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originals were a food-gathering group of independent and isolated tribes which had established an uneasy equilibrium between population and subsistence and had maintained it for a very long period—Nature being their main antagonist. They maintained the balance by reducing their numbers partly by primitive methods of contraception and partly by killing anyone who intruded upon their food-producing area or hunting ground. After many centuries of isolation their country was invaded by a Western European civilization: they were unable to meet its impact and today, with the exception of some tens of thousands segregated in settlements and a few still living in remote and unsettled areas, they are extinct. The Tasmanian, of course, is completely extinct.

In New Guinea, mixed native populations had established a civilization which had reached equilibrium with its environment and where numbers were kept at balance to a large extent by the ravages of endemic and epidemic diseases, particularly malaria. Of every ten children born, two lived to reach puberty. They, too, met the impact of the Western European civilization, but only to the limited degree involved in the establishment of missionary, trader, and government official. Nevertheless, the change involved in the restriction of their hunting grounds, the limitation of pig-raising, the loss of the social values of war—because war had some social values at that level of civilization—have combined to throw out of balance the equilibrium they had established, and these primitive people have as yet been unable to establish themselves at the new level.

The story of these very primitive people is, however, a late phase of the whole story of Oceania with its great Polynesian population where, from 1835 to 1925, the population declined 75 per cent after what appears to have been a long period of equilibrium. It was an equilibrium established and maintained, among certain of the Polynesian peoples at least, by a deliberate process of sacrifice of children. This was not a religious sacrifice, but the Solon who invented this process attached it to a secret society on the basis of social prestige—the Areioi. The social

standing of the Polynesian within his own community rose in accordance with the number of children who had been born and abandoned to death.

The reduction of 75 per cent in 90 years, due to the introduction of tuberculosis, pneumonia, alcohol, fire-arms, and the system of the recruitment of labour by what was in effect slavery by capture, was terminated by increasing controls established by law as law became effective throughout these thousands of islands. In the third generation, the Polynesians have begun to revive as a race, particularly in Samoa and New Zealand, but they are not the same people socially and their economic environment is not the same economic environment. It is one with a completely different outlook and deliberately multiplied needs. They have been caught up in the industrial stream even in these remote areas.

On the very outskirts of the Oceanic and Polynesian area, however, are two interesting groups, the Malays and the Japanese, and their histories are sufficiently different to justify comment. With the absorption of the South and West Pacific, the Malays and the Japanese, among other people, had the alternatives of absorption and colonial status or semi-independent or fully-independent economic cooperation. The Malays, broken into many weak groups, accepted colonial status, but they did not cooperate in what was in effect the introduction of a new economic system. As the easiest alternative, Malaya was overloaded with foreign labour, so that at the present time the Malays constitute only one quarter of the population of Malaya; half the population is Japanese, who to a large degree control the mercantile, the business needs, and the mining activities of the community; while the other quarter are Indian Tamils who a generation ago monopolized the railway services and various other needs.

The Japanese, on the other hand, accepted the economic challenge of Western civilization and ultimately modified their whole economy to base it on transit trade—an experiment involving the gravest consequences to their primary producers.

Five-sixths of the area of Japan is uncultivated because of the mountains and the cold. Forty-three per cent of the population tills the remaining one-sixth of the land on tiny holdings only sufficient for subsistence purposes in a primitive community. As the transit trade of Japan became more and more important, their standard of living inevitably declined, for that type of trade demands that your exporting capacity must be kept up by imports at the expense of your primary agrarian industries. The ideological reaction in these varying groups is interesting. The Australian aborigines and the primitive natives of New Guinea showed a resignation to the inevitable, a psychological "turning towards death," if one can accept that phrase. At the other end of the scale, Japan wrecked herself to equal the pace of the Western intruder. During the course of her long civilization, Japan had kept the population/subsistence ratio even by a deliberate policy of contraception. Under the Meiji restoration, this Tokugawa concept was replaced by a tremendous propaganda in the interests of the Shinto conception of the divinity of the children of the Sun-Goddess whose destiny was to lead the nations of the world under the four corners of Heaven each to its appointed place in the hierarchy of mankind. Contraception became sacrilege, but the ratio between population and subsistence utterly failed.

I mention these few facts in passing, thus inadequately, only to emphasize the statement that history as we know it is the story of a succession of balanced economies upset from time to time by a new factor making for a massive increase in productive power. The latest of these—that by which we are presently influenced—was the introduction of the railway in 1824. Every new productive force is followed by an immense expansion of population that outruns opportunity before it outruns population increase. Reference was made by another speaker just now to the development of the United States, but that development must be considered merely an item in a similar process of development and colonization throughout the whole world at that particular period. It is true that in 1846 the first

railroad was put right across the United States from sea to sea, but it is significant that the whole of the available colonial or undeveloped world was divided up between those colonizing powers that were first in the field between 1830 and 1850. The late-comers—Germany, who entered the field in 1870; Japan, who entered the field at the same time; Italy, who followed twenty years later—came too late, and to that fact we may ascribe the internal difficulties and the two world wars.

I should like to emphasize the fact—and I think you will all agree with it—that the two world wars have solved nothing in this regard. Whatever methods, whatever procedures are introduced at this stage to limit populations or to rationalize the population/subsistence ratio, cannot prevent the growth of population within the next fifty years to a critical and explosive degree. The limitation of political boundaries is in this regard an absurdity.

Take again the instance of Japan. In 1858, when her population was first estimated, it was set at 28 million. In 1938, shortly before the war, it had reached 68 million. Taking into consideration her war losses and every other catastrophe that can be imagined at the present time, nothing can prevent the population of Japan proper (that is, the main islands of Japan) reaching a figure of 113 million in 1968. Let us take a realistic point of view of this situation and consider what relation it bears to the solemn stupidities of treaty obligations. I suggest that we turn our attention also to the areas of South-east Asia and of Latin America. In the former, including Pakistan, Hindustan, Burma, the Malay States, Indonesia, the Philippines, Siam, Indo-China, and China itself, you find in this tropical and semi-tropical area half the population of the whole world. You find, moreover, a group of States including within it a great number which have just acquired independence—a group infused with a new stimulus, a new inspiration towards individualism, and an aim at all costs to protect these newly-found freedoms. In August last I was interested enough to test in those areas the reactions of the people themselves by con-

versation with rickshaw-pullers, wharf-men, and plantation coolies—individuals among the mass of people who, in fifty years' time in population at least, will be the greatest single problem of civilization as we know it. Perhaps that gives too much importance to the problem, but I think not much too much.

Their reaction to the Greater East-Asia Prosperity Zone propagandized by Japan was interesting indeed. The majority with whom I talked believed that the success of the Japanese was natural enough and directed towards a right objective, but that it failed because the Japanese were undisciplined and went far beyond their moral obligations and their physical possibilities; and they conceived that it was only these ideological failures that had caused the Japanese retreat.

This is a very grave and significant fact. They did not relate the retreat of the Japanese to the intervention of the Allied Forces, and when the occupation of Japan by the Allies was pointed out to them, these people—who are not only not Japanese, but suffered greatly at their hands—regarded the occupation of Japan as a punishment not for the war but for the perfection of the people by discipline through hardship. This is a Japanese concept, but I found it universal.

The possibilities of their own new freedom and the development of their own new countries are also matters of intense interest to them, but their conclusions were even more so. The majority summed up the situation by saying that the Greater East-Asia Prosperity Zone must be protected within some international framework: if the United Nations should prove to be strong enough, within the framework of the United Nations; and if it were not strong enough, then within some other international framework. Is the United Nations strong enough? Is it likely to get the support that will permit it to implement its Charter which imposes upon it a social obligation to improve the standard of living in underdeveloped and underprivileged territories in association with the Specialized Agencies? The field is rigidly restricted by budgetary limitations and by a

minimal priority program. The priority program is in effect a huge one. It is the obligation to direct the activities, the intentions and the ideas of the peoples of these huge underdeveloped groups in such a way that when they become a dominant factor in the scheme of things, as they will, their reactions will be along lines that experience has proved to be most progressive socially.

How can that be done? Up to the present our program in underdeveloped territories has been a matter of social education and the correction of disease, the latter through the intervention of the World Health Organization. The United Nations has held two seminars this year in Latin America. In 1948 it aims to hold seminars in the Far East, the Middle East, Eastern Europe, and again in Latin America. A tremendous interest in the development of social science has been demonstrated by the people concerned. There is a very ready desire to implement this interest by the establishment of schools of social science. I am going down tomorrow to inquire into the possibilities in that regard in a neighboring Latin American State. Moreover, a very strong desire was evidenced in these Latin American and Asiatic countries to send Fellowship holders to acquire the best information available from the best sources throughout the world in order that they might take it back and apply as much of it as was applicable in their own countries. We have sent Advisory Social Welfare Experts to them, but they have shrewdly observed that these experts can only bring the systems of their own countries which may not be applicable in less developed lands, while the Fellowship holders travelling from their own countries can readily assess what is applicable and can spend the rest of their lives applying it. In United Nations I am convinced that their line of approach has much to commend it and is definitely a practical line.

The question before our children and our grandchildren, however, is whether nations can govern their population/subsistence ratio and nevertheless maintain their geographical and cultural frontiers. The population graph, however, drawn from

1810 to 1940, shows in the most graphic form not only the rise and fall of populations, but the history of every nation indicated, and the pre-factors of every major war. If every nation developed at the same rate at the same time; if the nations, in following the up and down curves of the graph—almost identical for all of them—kept pace or apprehended the significance of this progression of figures, we might be able to rely upon a regulated development in full enlightenment. But, alas! Early starters reach their peaks much earlier than late starters, and those late starters, forced forward by the pressure of population, necessarily become a threat to every specialized frontier of culture and civilization.

I believe that the work—the project—the job—for social workers all over the world is to carry us through this transition period until all nations can reach another stage of equilibrium in the history of civilization—an equilibrium upon which civilization can rest for a considerable period; a stage upon which it can rest until some new productive force, some new capacity for development, can revive again that psychological impulse that pushes mankind forward towards new achievement, that puts civilization again at hazard, and that demands again a new solution.

## PUERTO RICO'S POPULATION PROBLEM: RESEARCH AND POLICY<sup>1</sup>

KINGSLEY DAVIS<sup>2</sup>

THE present demographic situation in Puerto Rico is well known in a general way. Briefly stated it is this: The Island has an agricultural economy with an industrial density. In 1940 the proportion of gainfully occupied males working in agriculture, according to the census, was 57 per cent. The proportion has been declining gradually, but as late as 1945-1946 agriculture still originated twice as much income as did manufacturing, and half of the manufacturing that did exist was devoted to the processing of agricultural products. This dependence on agriculture would represent no problem if the other conditions were satisfactory, but Puerto Rico suffers from a great limitation on its primary agricultural resource—land. With a population estimated to be 2,182,000 by the beginning of 1948, the Island has a density of 638 per square mile. This is a density that approximates that of England and Wales (718 in 1940) and exceeds that of Japan (496 in 1940) and Massachusetts (546 in 1940). For its size Puerto Rico is the most densely populated agricultural area in the Americas. It has a higher ratio of farm population per unit of cultivable land (approximately 570 per square mile) than does India.<sup>3</sup> Without much exaggeration it can be called "the little Java of the Western Hemisphere." Its population is surely beyond the optimum size for the highest per capita return from agriculture.

Instead of reducing its population, however, Puerto Rico is steadily increasing it. The death rate, though still high by American standards, continues to decline, while the birth rate remains at a very high level. Between 1932 and 1947 deaths

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<sup>2</sup> Formerly on the staff of the Office of Population Research. Now Director of the Division of Population Research, Bureau of Applied Social Research, Columbia University.

<sup>3</sup> For comparative figures see Kingsley Davis, "Demographic Fact and Policy in India," in DEMOGRAPHIC STUDIES OF SELECTED AREAS OF RAPID GROWTH, New York; Milbank Memorial Fund, 1944, p. 36.

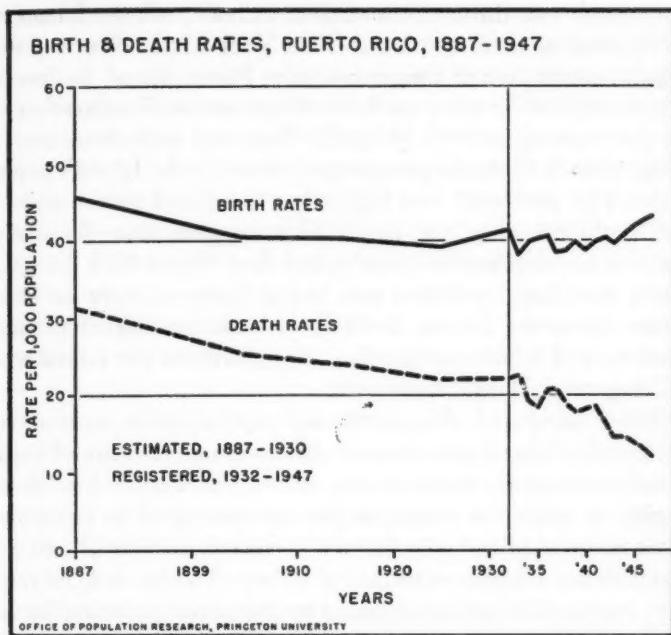


Fig. 1. Birth and death rates in Puerto Rico, 1887-1947.

declined from 22.3 to 12.0 per thousand, a drop of 46 per cent; whereas births increased slightly from 41.5 to 43.4 per thousand. (See Figure 1). As a result the crude rate of natural increase has risen sharply, from 19.2 per thousand in 1932 to 31.4 per thousand in 1947; it is now probably the highest in the world. In the year 1946, when the natural increase was 29.5, approximately 61,200 persons were added to the Island's population by natural increase. This would have added approximately 18 persons per square mile in a single year, more than a third of the average density in the United States, and if continued, would have doubled the population in 23 years.

No wonder a safety valve operated to keep this natural increase from actually expanding the population at such a rapid rate. The safety valve was emigration. Approximately 38,900

persons, or two-thirds of the natural increase, left the Island in 1946, most of them coming to New York City. This was the biggest single year of emigration from Puerto Rico.<sup>4</sup> In fact it was nearly half as many as the total net recorded emigration in all the years up to 1946 (87,000). Yet even with this massive emigration in 1946, the percentage increase in the Island's population (1.1 per cent) was high when compared to the rest of the world taken by and large. This suggests that the safety valve is not working adequately, and that Puerto Rico not only has a population problem now but is likely to have an even worse one in the future. In 1947, with an even higher natural increase and a lower emigration, the growth on the Island was much greater, being 1.9 per cent.

When faced with this continuous population increase on an agricultural island, the observer thinks of one or more of three possible solutions. *First*, he may decide that Puerto Rico must rapidly increase the tempo, scope, and variety of its economy, so as to provide not only for the increased number of persons but also for a higher standard of living. To this end, he may say, Puerto Rico should increase its industrial capacity, intensify and diversify its agriculture, and secure whatever advantages it can in foreign trade. *Second*, the observer may state that a larger emigration is necessary—an outflow of Puerto Ricans large enough to cancel the natural increase or even to reduce the existing population. To this end, he may say, the difficulties in the way of further movement to accustomed places of emigration (such as New York City and St. Croix) should be removed, and new places of emigration (*viz.* Venezuela, the Dominican Republic, Brazil, or American cities other than New York) should be found. *Third*, one may take the position that the birth rate in Puerto Rico should be reduced until it virtually matches the death rate, thus eliminating the population pres-

<sup>4</sup> Puerto Rico, Bureau of the Budget, Division of Statistics: *Monthly Statistical Report*, Oct.-Dec., 1947, p. 31. The year 1947 showed a slight drop in the number of Puerto Rican emigrants, approximately 24,600 leaving the Island in that year (*ibid.*). It is interesting that Puerto Rico's postwar emigration has been almost entirely airborne, the first airborne mass migration in human history.

sure at its source. To this end, it is often argued, a contraceptive program should be pushed in Puerto Rico, and measures known to be associated with the use of contraception—education, female employment, urbanization—should be encouraged.

In advocating any particular one of the three solutions, many persons forget the other two; yet it is quite clear that the three are related in a complex way. If economic advance is proposed as the only solution, the reasoning is unrealistic, because in Puerto Rico's situation one of the main obstacles to economic progress is precisely the redundant and ever growing population, which makes capital accumulation and mechanization extraordinarily difficult.<sup>5</sup> Since 1940 the labor force has been growing at a rate of about 14,000 each year. The labor force is too large and is growing too fast to be absorbed by the limited economic structure, with the result that even in the most favorable times large numbers are unemployed, many are underemployed, and wages are low. The enormous burden of providing relief, of educating the ever-growing number of children, of importing food, places a great handicap on fundamental industrial change. Instead of building up an economic system that will *draw* a dense population, Puerto Rico has a dense population and is trying to draw to itself a *new economy*—a process that is far from easy. The world's most

<sup>5</sup> Felix S. Cohen has recently become the spokesman for the point of view that the solution of Puerto Rico's problems lies in developing the resourcefulness of its people. See his article, "The Myth of Puerto Rican Overpopulation" in the *News Letter* of the Institute of Ethnic Affairs, Vol. 2 (October, 1947), pp. 1-3, and his rebuttal to Clarence Senior's reply in a later issue of the same publication, Vol. 3 (March, 1948), pp. 3-4. See also Cohen's fuller version of his views, "Science and Politics in Puerto Rico," *Journal of Social Issues* Vol. 3 (Fall 1947), pp. 6-17. By liberal use of innuendo and appeals to nationalistic and religious prejudice, he argues that Puerto Rico has all the natural resources that it needs, that there is no population problem, and that economic development by "resourcefulness" can solve permanently the question of poverty no matter how dense the population becomes. It seems never to occur to him that the "resourcefulness" of a people may manifest itself in the control of its population increase, just as much as in the control of its economic life. On the contrary, he seems to argue that reproduction should not be controlled. He does not realize the interdependence of population growth and economic development.

In his reply to Cohen, Clarence Senior in the same publication, "Puerto Rico Is Overpopulated," Vol. 3 (March, 1948), pp. 1-3, stresses both the necessity of industrialization and the obstacles that the rapid population increase poses for such a program.

rapidly industrializing areas (Australia, Argentina, Russia) are those with comparatively sparse populations, as has generally been the case.<sup>6</sup> It would therefore seem absurd in Puerto Rico not to help economic progress along by working at the same time on the demographic side to slow the rate of population growth. In the long run the purely economic solution would be hopeless unless it affected population growth, because no conceivable economic progress could endlessly take care of ever-growing numbers in a restricted area. In Puerto Rico it seemingly cannot do it even for a short period.

On the other hand, emigration can hardly serve as the single solution. In a world where population is growing nearly everywhere, where increasing barriers are being erected against foreigners, there is little likelihood that any country can place its people elsewhere indefinitely. Nor is today's cost of continued emigration easy to bear. The human and economic cost indeed makes very strange the notion that migration is an easier solution than the limitation of fertility. The question, "Is it easier to move to a foreign country than to have fewer offspring?" does not present itself to the actor, but it does present itself to the observer, and the answer is clearly negative.<sup>7</sup> Migration can be a short-run aid to solving Puerto Rico's population problem, but unless it helps to lower fertility and to foster economic advance, it cannot be effective. In itself it is not a complete solution.

The third possibility, a reduction of fertility to the level of the death rate, would alleviate Puerto Rico's poverty, in so far as population growth is responsible. But unless economic change took place at the same time, Puerto Rico would still remain comparatively poor. Moreover, a change in so fundamental a thing as reproductive behavior cannot take place without a corresponding and facilitating change in other aspects of social organization. To neglect these other changes would

<sup>6</sup> Japan is a notable exception, but when she started her industrialization her population density was far less than that of Puerto Rico today.

<sup>7</sup> The logic of this question was first suggested to the writer by his colleague in Puerto Rican research, Professor Paul K. Hatt.

be to omit the very factors most likely to guarantee success for fertility control.

In short, all three variables—the economic, the migratory, and the reproductive—are parts of a dynamic equilibrium. A change in one affects, and is effected by, the others. Any successful overall policy must address itself to all three. This is no argument, of course, against specialized research, but against single-factor determinism on the interpretative and policy levels. As far as the economic side is concerned, research and government policy in Puerto Rico have gone a good way.<sup>8</sup> On the population side considerable research has also been done, especially with reference to the formal demography of the Island.<sup>9</sup> The vital statistics and census returns are sufficiently accurate to provide a clear view of the major population trends. Puerto Ricans and others have realized, however, that a knowledge of trends is not enough. A knowledge of causes and motives is also required. Consequently, several studies have been undertaken which will throw additional light on the population question.

One of these, now nearing completion, is an investigation of Puerto Rican migrants in New York City. The Government of Puerto Rico commissioned the Bureau of Applied Social Research, Columbia University, to make the study. Professor C. Wright Mills was made project director, and Professor Clarence

<sup>8</sup> The Social Science Research Center of the University of Puerto Rico is sponsoring fundamental economic studies. See Creamer, Daniel: THE NET INCOME OF THE PUERTO RICAN ECONOMY, 1946. A broader study will shortly be published by Harvey S. Perloff. A third study on agricultural problems is now about complete. And a fourth study, on labor efficiency, is being planned. In addition, the Puerto Rico Planning, Urbanizing, and Zoning Board is making studies and plans for official action. The government, through its developmental agencies, is stimulating industrial development and helping to rationalize agriculture. See Mackie, Donald: THE INDUSTRIALIZATION PROGRAM OF PUERTO RICO. (Senior Thesis, Princeton University, 1948).

<sup>9</sup> See especially Janer, José L.: Population Growth in Puerto Rico and Its Relation to Time Changes, *Human Biology*, Vol. 17 (December, 1945), pp. 267-89; Bartlett, Frederic P. and Howell, Brandon: THE POPULATION PROBLEM IN PUERTO RICO. Santurce, Puerto Rico Planning, Urbanizing and Zoning Board, Technical Paper No. 2, 1944; Tietze, Christopher: Human Fertility in Puerto Rico, *American Journal of Sociology*, Vol. 53 (July, 1947), pp. 34-40; Senior, Clarence: PUERTO RICAN EMIGRATION, Rio Piedras, Social Science Research Center, University of Puerto Rico, 1947.

Senior, until then the head of the Social Science Research Center at the University of Puerto Rico, was made associate director. "The purpose of the investigation is twofold: (1) to serve city, state, and private welfare agencies by answering their questions concerning Puerto Rican migrants, and (2) to help the Puerto Rican Government in guiding and directing migration, and possibly to suggest other cities in the United States to which the migrants could successfully adjust."<sup>10</sup> Three kinds of information are emerging from the study. First there is demographic information on the number, location, age, sex, family composition, occupation, and industrial affiliation of the migrants. Second there is welfare information on the amount of medical and other social assistance needed and received by the Puerto Ricans. And third, there is psychological information on the migrants' modes of adjustment to life in New York. Since, as previously mentioned, New York City is the chief destination of Puerto Rican emigration, the significance of this study for an understanding of the migratory aspects of Puerto Rico's population problem is quite apparent.<sup>11</sup>

In New York a study has also been made by the Welfare Council Committee on Puerto Ricans, giving the welfare picture as seen by the social work agencies and making constructive suggestions for the better adjustment of this ethnic group in the City.<sup>12</sup> In addition, the Social Research Laboratory of the College of the City of New York is investigating various aspects of community organization among the Puerto Rican New Yorkers; and New York University and the University of Puerto Rico have been cooperating on a project of teacher education with reference to the school problems of Puerto Ricans

<sup>10</sup> Research on Puerto Rican Migration, *News Letter* of the Institute of Ethnic Affairs, Inc., Vol. 3 (March, 1948), p. 5.

<sup>11</sup> The second most important destination of Puerto Rican migrants is the island of St. Croix, in the Virgin Islands. Clarence Senior has made a study of the Puerto Rican community there: THE PUERTO RICAN MIGRANT IN ST. CROIX, Rio Piedras, Social Science Research Center, University of Puerto Rico, 1947. Most of the results of this study were incorporated in the larger volume, PUERTO RICAN EMIGRATION, previously cited.

<sup>12</sup> Committee on Puerto Ricans in New York City, *Report* New York, Welfare Council of New York, 1948, 60 pp.

both on the Island and in New York City.<sup>13</sup> In so far as such investigations lead to policies facilitating the adjustment of Puerto Ricans in New York, they will doubtless tend to increase the number of migrants coming to the United States. As the continental group increases in size, it will tend to attract more people from the Island. Barring a depression with consequent unemployment and a deterioration of welfare activities, the movement to the United States can be expected to continue on a large scale.

With reference to Puerto Rico itself, the Office of Population Research of Princeton University and the Social Science Research Center of the University of Puerto Rico are currently engaged on a joint two-year study of population problems. The project embraces two aspects, first a definitive investigation of the formal demography of the Island, and second a field study of the motives, attitudes, and institutions that are affecting fertility and migration. The demographic work, under Mr. José L. Janer's supervision, includes the following: population projections under various assumptions, a detailed analysis of mortality, a review of the statistics and trends in general and differential fertility, a survey of marriage statistics, and a study of the characteristics of emigrants. The field investigation of motives and attitudes, under Dr. Paul K. Hatt's supervision, is aimed at sampling the entire population with reference to the cultural and social conditions affecting fertility and migration. It hopes to find those factors that might most readily and feasibly be influenced by public policy, and to suggest possible ways by which policies designed to slow the natural increase might be implemented.<sup>14</sup>

<sup>13</sup> "Research on Puerto Rican Migration," *loc. cit.*, p. 6.

<sup>14</sup> The investigation of factors affecting fertility includes a complete pregnancy and contraceptive history, a complete marriage history, material on attitudes toward female employment, aspiration levels for children (employment, education, type of marriage, etc.), attitudes toward type of marital union, and sentiments and behavior with respect to religion. The study of factors affecting migration includes attitudes toward migration as regards both the residents themselves and their children; the amount of money sent back from abroad; the relationship of the sender to the receiver, and the regularity of the remittances; and finally, the previous pattern of

(Continued on p. 308)

Although the field work, editing, and coding of the schedules have been completed, it is too early to announce preliminary results of the investigation. The same is true of the demographic work. It is expected that results will be available within a year or two.

This summary has mentioned all the current research projects known to the writer which bear on population in Puerto Rico. There are doubtless others. In any case, enough has been said to justify the conclusion that demographic research is being undertaken on a scale adequate to furnish the scientific basis for a consideration of population policies. The actual implementation of such policies will certainly require still more research, but at least a start has been made. It seems clear that Puerto Rico has a serious population problem, and that responsible officials are aware of this problem and wish to understand better its scope and causation. Practically no one questions the necessity of working at the same time on the economic problems of the Island. In fact, it should become increasingly clear, as both demographic and economic research proceed, that the two aspects are closely interrelated. In the formation of policy, attention cannot be given to one aspect alone while ignoring the other, because in that way the policy may defeat itself. Population trends have consequences in every aspect of life. The future welfare of Puerto Rico depends on a knowledge of, and an intelligent policy with respect to, population, just as it depends also on a knowledge of economic life. Research cannot determine the policy to be adopted, but it can make the policy more effective in achieving desired ends.

migration of the respondents on the Island. Such information will supplement other data being obtained from official sources on the occupation, residence, age, sex, and permanent place of residence of overseas migrants, and on the patterns of internal migration on the Island.

## PROBLEMS OF RECONSTRUCTION IN PUERTO RICO

REXFORD GUY TUGWELL<sup>1</sup>

I THINK it is a little late to turn this round-table discussion to other than demographic problems. We have only a short time left and obviously if we try to discuss adequately the problems of reconstruction—by which I take it is meant construction, since reconstruction implies more to begin with than exists—it would certainly take much longer than is available to us.

As to the demographic questions which have come up, if I may be allowed to comment on them from the point of view of one who has worked in the field and who began as a social scientist, it seems to me that this has been a very valuable conference. My feeling is that things have been drawn together so that the organic nature—the wholeness of the situation—has been emphasized. I think that is extremely important.

The danger in all parallel attempts to persuade society to better itself is that we shall all of us follow our own lines of development and forget the others.

I was very much interested in Mr. Davis's division of the ways of improvement in Puerto Rico into three. He was speaking, of course, from the demographic point of view, but he said that the ways to improve Puerto Rico would be by (1) economic improvement, (2) emigration, or (3) reduction of the population. I believe if an economist were going to state the ways to improve Puerto Rico, he would make exactly the same statement. He might have a different emphasis in the following discussion, but I think he would state his position about the same way, and I think that those of us who have worked with public policy in Puerto Rico have approached it with just those things in mind.

Our efforts have not always been approved because people, as you know, after stating a thing as reasonably as that, often are not so reasonable about following it up. They frequently

<sup>1</sup> Professor of Political Science, The University of Chicago.

feel that their particular way to improve is much more important than the others, or that the emphasis which public policy is following is wrong, and they frequently condemn the efforts of others in somewhat immoderate terms.

I think it must be said in all fairness that the possibilities in Puerto Rico have been pretty generally disputed over these three fields. It is true that in none of the fields have we had adequate information or do we have adequate information, as a matter of fact, today. As you see, it is coming in the demographic field, and, as Mr. Davis mentioned in passing, it is coming in the economic field too.

We already have two or three basic reports, either finished or well under way; we are going to have information on which public policy can be based very much more intelligently than it has been in the past. As to emigration, the third "out," so to speak, information is going to become available on that as well; so that in all three fields we are going to be very much better equipped to make decisions and to shape an intelligent policy than we have been in the past.

I have tried to think how I might contribute best to this discussion. Obviously I cannot do it in the demographic field. I thought perhaps it might be interesting to go back and to review the situation which we faced some years ago and to say something about the solutions as we attempted to build them up.

As you know, all attempts in this field of human betterment are very long-time solutions, and the difficulty of determining what the results are over any short period of time is very great. Not only that, as this group is perfectly well aware, the results are apt to become so mixed up that it is very difficult to separate out what were the causative factors and what were the ones which played only subordinate parts in whatever result is arrived at.

I cannot very well go much further back than the beginning of my governorship, which was in 1941, but obviously great changes have occurred in Puerto Rico beginning with the dates

mentioned by Mr. Davis which showed so clearly the beginning of the death rate decline. That was the time when American relief began to be extended to Puerto Rico in large sums; it was this period which I, sitting at the other end of the table, referred to as the "New Deal."

There was a change at that time in the attitude of the United States toward Puerto Rico which is best measured by the amount of relief which was extended to her poverty-stricken population. It expressed itself not only in home relief but in work relief and in assistance in housing and various public works as well as in other ways, to the extent, over a ten-year period of something like, although differing from year to year, fifty million dollars a year.

That is quite a large amount in comparison with any relevant figures concerning the Puerto Rican economy. For instance, the governmental budget—although it was constructed so that it was very difficult to say what it was exactly—was in the neighborhood of fifty million dollars itself, so that the relief granted was, you see, almost equal to the budget itself. This contribution was kept up over a period of years, with some intervals, as in the United States. There were some large and some smaller years but it was a foundation on which we could build when my group began to make its great efforts in Puerto Rico in 1941.

Let me say that we were not interested particularly, as we analyzed the situation, in further relief, because we felt that the relief which had come to Puerto Rico had not really been constructive. It had merely held things in *status quo*. Now, of course, great efforts would be necessary to rise above this level. That had always been recognized and nobody, I think, had ever known whether efforts great enough could be put out; but it was quite clear that those efforts were not going to be sufficient if they were merely quantitative because, measured in any quantitative terms, enough goods and dollars could not be brought to Puerto Rico to bring it to a standard of living comparable to the United States. That was completely unthinkable.

The efforts had to come, as all great constructive efforts in human history have had to come, out of men's heads and out of nowhere else.

I was interested to see that Mr. Stacy May had somewhat the same experience in Brazil and Venezuela. If you think in terms of capital enough to make a difference in this race between population and well-being—if you want to put it in those terms—you have to realize that you find the resources in men's spirits and men's minds and men's heads. You cannot find it in their pocketbooks and you cannot find it in material things.

In Puerto Rico, what we attempted to do was in the first place to reorganize men's attitudes toward government and toward the accomplishments that could be made in public welfare. When I say public welfare, I mean the welfare of the Puerto Rican people in general. That involved improving the headpiece first, so what we attempted to do was to set up a planning outfit which would be effective, to improve the public services of all kinds by reorganizing the civil service and the departmental personnel services and by doing all the other things which would make the government more effective for its share in this attempt to increase the standard of living.

We had some notable results from that and I think the results were largely notable because we did it in an unorthodox way. I am sure that if I had had to choose the first fifty associates who were gathered together in order to carry out this program of construction, through civil service methods, I should not have been able to get them. One of my chief assistants had been a druggist. One or two were fairly obscure professors, and many of them were found in other places. Some were contractors; some were lawyers; a few were doctors. They came from all kinds of places. I had to take a lot of chances in my selection but I had an extraordinarily large number of successes with them.

The next series of things we attempted to do after we got the planning going and got into the public service a new spirit, at least, if not complete reorganization, and after we got better

budgetary procedures and other reforms of that kind instituted —was to see whether in the field of the production of goods and services in Puerto Rico, something striking and new and novel could not be pulled out of the air.

We could not raise the level of living in Puerto Rico by producing sugar. Sugar was being produced as well as it could be produced, probably, within a very small percentage, and yet sugar was the great resource of Puerto Rico. Coffee and tobacco had been important in the past, but they probably could not be revived. We had to see if we could not think of something entirely new.

There were two possible lines of thinking if it was approached in that way. They have been mentioned here before, today. One was to consider industrial possibilities, and the other was to consider agricultural possibilities. Well, the druggist from Ponce, who was mentioned before, who took charge of the attempt to industrialize the island, got hold of what we considered, and I guess it would still be considered, the best engineering advisory firm of that kind in the United States and went over all the possibilities anybody could think of and decided on ten or a dozen possibilities for industrial adventures, if I may call them that, and they are now under way.

It is entirely too early yet to say what success they may have and everybody was always conscious that their success was not only dependent on what might happen in Puerto Rico itself but on lots of things that might happen to the island from the outside. Because Puerto Rico is a dependent area and being a dependent area means being part of the larger system and being affected by changes which occur in the larger system, which are entirely outside of your control.

Then we turned to agriculture. Well, it was obvious that if one approached the agricultural matter from an entirely new point of view, Puerto Rico is a place where the sun shines nearly every day, where there is water available, and anything which could be done with sunshine and water could be done in Puerto Rico; so a number of possibilities opened out.

We had a great deal more trouble getting an agricultural development company established than we had in getting an industrial company established, because there were vested interests in Puerto Rican agriculture. But they were not so much the vested interests you might think of. It was not the sugar barons who were effective in opposition so much as the agronomists, who always knew so many reasons why nothing except the growing of sugar was possible.

Therefore, we are still further away from reporting any final results from the new ventures in agriculture in Puerto Rico than in reporting on the industrial adventures. The agricultural program is the one on which I myself worked longest and hardest; and it is still the closest to my heart. I still hesitate to say, however, what the result will be.

I am often asked what the chances are that the Puerto Ricans will go on with the attempt to keep up the reforms which were made in the public service—whether they will, for instance, keep the planning organization and budgetary control at the high state of development which it has at present reached. I have had a most wonderful experience in taking people who know something of city and state planning to see our planning organization. They invariably say: "This is the finest thing I have ever seen"; and it is the best planning job, I believe, that has ever been done anywhere within the American sphere of influence.

I have to be honest to this extent: We had some awfully good luck while I was Governor. A Governor's good luck consists of having funds enough to operate on. If funds enough come in anything can be done; and if there are not enough funds nothing can be done.

The war was a great disadvantage in many ways. When we were besieged by submarines we were unable to get materials for the building ventures we wanted to carry on; and even housing had to stop. There were other difficulties. But there was one benefit which I am sure those of you who do not know the particular situation in Puerto Rico would never guess. It

happened that there the internal revenue taxes for products which originate in Puerto Rico are returned to the Puerto Rican Government. During the war whisky-making stopped in the United States; and Puerto Rican rum began to be drunk in unaccustomed quantities. Also the Congress raised the taxes eventually from \$4.00 to \$9.00 a gallon. The result of this was that one year we had a revenue from that source alone which was larger than the budget. With the consent of the Insular Legislature, we allocated practically all of this unexpected revenue to the new industrial and agricultural ventures, so that we were able to have an initial capital which gave them a decent chance to get well started. They have not used up that capital yet by any means.

Puerto Rico may be an interesting laboratory to demographers but it is just as interesting, I think, to the rest of us. It is true that the situation is a very bad one from the point of view of the amount of land there is and the amount of obvious resources there are contrasted with the number of people who have to share them; whether or not we shall be able to change the relationship between the amount of goods there are and the number of people there are by any methods at all, I think is still a question which is not answered. Certainly it is not answered by any facts I know.<sup>2</sup>

The attack has been a varied one; and now if it becomes possible to get some reduction of population at the source, that will help and I should like to see it tried in any way that it can be tried.

I have some feeling about the possibility of birth control, as I

<sup>2</sup> There is one other thing which is of interest, particularly to me, which I should like to mention. It is a subordinate matter but it will be of interest to Mr. Stacy May, I know. We too found in Puerto Rico that it was useless to talk about increasing food production or devising any new things in agriculture unless we could get through to the consumer, and we were completely blocked by a small bloc of importers and distributors.

It was not so much a monopoly as a general agreement to have several times the mark-ups which are customary in the United States. So we put in a system of state stores. It was a pretty drastic thing to do but it worked and it is working now, and whether the state stores are successful or not, it certainly has cut the mark-ups on agricultural products. Furthermore, food is getting through to the people in a far freer flow and with less additions of profits for middlemen than before.

am sure all of you have, and some concern as to how it is going to be managed, as I am sure all of you have. I do feel, however, that the excess of births over deaths in Puerto Rico is one which is not to be discussed on any other grounds than that the Puerto Ricans are making a contribution to the population of the United States which the people of the United States in general did not choose; therefore such a contribution ought to be an interest not only of the Puerto Ricans but of all Americans.

# ANNOTATIONS

## INTERNATIONAL UNION FOR THE SCIENTIFIC STUDY OF POPULATION<sup>1</sup>

CONSTITUTION ADOPTED BY THE GENERAL ASSEMBLY OF THE  
UNION IN WASHINGTON, D. C., SEPTEMBER 6-11, 1947

(*Translation*)

### I. NAME

1. The International Union for the Scientific Investigation of Population Problems shall henceforth be named the International Union for the Scientific Study of Population. It may hereinafter be referred to as "the Union."

### II. PURPOSE

2. The Union has for its aim to facilitate the progress of quantitative and qualitative demography as a science.

The Union shall pursue this objective through publications, by organizing congresses, and by furthering relationships between demographers of all countries. It shall endeavor in all ways to stimulate an interest in demography among countries and among national and international institutions originating in such countries, as well as in the scientific and intellectual world, and in general public opinion.

Upon the initiative of the Executive Council the Union may affiliate itself with other international organizations upon a vote of the General Assembly.

<sup>1</sup> Editors' Note: The former "International Union for the Scientific Investigation of Population Problems" was reorganized into the "International Union for the Scientific Study of Population" in General Assembly meetings held in Washington, D. C. September 6 and 11, 1947. The most important aspect of the reorganization was the change from National Committee to individual membership. This change required the writing of a new constitution. The French text of the Constitution is the official text. The present translation was prepared by several United States members of the Union.

**III. ORGANS**

3. The organs of the Union are the General Assembly and the Executive Council.

**IV. MEMBERSHIP**

4. The Union is exclusively composed of individual members chosen on the basis of their scientific achievements and in such a way as to maintain a balanced representation among different countries and different fields of specialization.

When the number of members in a given country is five or more, they shall organize themselves into a National Committee. Each such National Committee shall conduct its relations with the Union through its chairman.

Any association or organization interested in demography without being engaged in political activities or in propaganda may affiliate itself with the Union upon approval by the Executive Council and by paying a periodic contribution, the amount of which shall be fixed by agreement with the Council.

5. The maximum number of votes cast by any one country or by any one National Committee is fixed at one-eighth of the total number of members of the Union. The National Committee shall, if necessary, designate the appropriate number of its members as voting members. For the purpose of this provision members shall be considered as belonging to the country where they have established their permanent residence.

6. After the first recruitment of members effected during the reorganization of the Union (September, 1947), elections shall take place whenever the Executive Council shall so decide.

7. The election of members shall be by mail ballot. A majority of the votes cast shall constitute an election provided that at least 25 per cent of the voting members have taken part in the ballot; their votes must have been received within a specified time limit.

The presentation of each nominee shall be accompanied by a summary of his scientific achievements. He must be presented by five members, one of whom must belong to the same country as the candidate if there are three or more members of the Union in that country. If that is not the case, one of his sponsors must be a member of the Executive Council.

The Executive Council may by a two-thirds majority temporarily withhold the admission of a member. It may also, for serious reasons, suspend a member. Final decisions concerning the expulsion of a member are taken by the General Assembly. The member in question has the right to present his case before the Council and, if necessary, before the General Assembly. The same procedure of expulsion shall be applied to affiliated associations and organizations.

#### V. SESSIONS AND CONGRESSES

8. General Assemblies shall take place ordinarily at intervals not exceeding three years. This rule may be disregarded in exceptional circumstances by a decision of the Council.

At each session the place and date of the next session shall be determined.

9. The sessions of the Union shall coincide as far as possible with the International Congresses referred to in Article II. These congresses shall be open meetings. However, the Executive Council, assisted by a special committee appointed for this purpose, may refuse to admit any particular communication or the participation of any particular person in the discussions. Papers of members of the Union may be rejected only if they are not scientific contributions. The Executive Council and the Special Committee may fix a limit for the number and volume of papers presented by any one member.

#### VI. EXECUTIVE COUNCIL

10. At each session the General Assembly shall elect a President, seven Vice-Presidents and a Secretary-Treasurer. These shall constitute the Executive Council of the Union, take office immediately, and serve until the election of a new Executive Council. If a vacancy occurs the Executive Council shall effect the necessary replacement.

At the opening of each session of the General Assembly a Nominating Committee shall be elected by the Assembly in order to prepare a list of candidates to be elected members of the Executive Council. Any one nomination may be presented by at least five members of the Assembly, and shall be posted with the list prepared by the Nominating Committee.

The Council shall provide a reasonable lapse of time between the posting of the list prepared by the Nominating Committee and the presentation of any other candidates.

Members of the Executive Council may be reelected. The President and the Vice-President may not serve for more than two consecutive terms in the same office. The outgoing President may be elected Honorary President by the Assembly.

11. The Executive Council is charged with the administration of the Union and with the organization of its scientific activities. It shall also arrange the sessions. In case of urgency, the President shall take whatever measures he deems necessary, but he shall report such decisions at once to the members of the Executive Council.

At each session of the Union the President, in the name of the Executive Council, shall present a report of the activities of the Union in the period since the preceding session.

12. The Secretary-Treasurer shall in consultation with the President keep the Minutes, handle the correspondence, and carry out the decisions of the Union, except where the General Assembly may provide otherwise. He shall keep the records. He shall direct the various activities which are concentrated at the Headquarters of the Union. He may, upon approval by the Executive Council, employ secretaries and employees needed for carrying out his functions. A Director, who shall be responsible to the Executive Council, may also be employed to assist the Secretary-Treasurer in his work.

13. The Secretary-Treasurer is in charge of financial management and of keeping accounts. At each session he shall present a report on the term then ending.

In advance of each session of the General Assembly the Executive Council shall employ a professional auditor to examine the financial accounts of the Union. The results of his examination shall be included in the Secretary-Treasurer's report.

#### VII. HEADQUARTERS

14. The headquarters of the Union shall be determined by the Executive Council, the decision of which shall be ratified by the General Assembly consulted if necessary by mail.

15. The library, the archives, the accounts and all other services shall be located at headquarters.

#### VIII. COMMITTEES

16. The Union may form committees either permanent or temporary. To these committees may be assigned scientific investigations or studies of problems with respect to the Union itself concerning its organization, its functioning or its external relations. They shall expire at the next session of the Union unless reappointed at that time.

#### IX. PUBLICATIONS

17. The Union shall publish the Proceedings of the sessions and Congresses and, if possible, independently or in cooperation, a periodic bulletin containing demographic studies, abstracts from recent demographic publications of interest, a bibliography of recent books and articles in reviews, annual reports, etc.

#### X. FUNDS

18. The financial resources of the Union are as follows:

1. The annual dues fixed at the equivalent of 25 Swiss gold francs at the official exchange rate at the close of the preceding year.

The dues are payable beginning with and including the year of election. They confer the right to receive all publications of the Union. An unjustified delay of two years in payment of the dues may be considered the equivalent of a resignation, unless a contrary decision is taken by the Executive Council.

2. Subscriptions and sale of publications.

3. Endowments, legacies, subsidies, or other voluntary contributions.

A reserve fund shall be established, the revenue from which shall be applied to the expenses of the Union.

#### XI. AMENDMENTS TO THE CONSTITUTION

19. Each proposal for any amendment to the Constitution shall be accompanied by a statement of reasons and by a detailed exposition of the texts in question, which shall be submitted to the members of the Union at least three months before

the meeting of the General Assembly. Each proposed amendment shall be signed by at least ten members belonging to at least two different countries.

The proposed amendments shall be discussed in General Assembly. They shall be adopted in whole or in part only if two-thirds of the voting members have agreed to accept them; and provided that this decision has been ratified by a mail ballot in which a majority of the voting members participate; and provided that this mail ballot has resulted in the adoption of the new text as a whole by a majority of those voting.

#### XII. DEFINITIONS AND VARIOUS PROVISIONS

20. The terms "nation," "state," or "country" appearing in this text are used in the sense of a political unit recognized as sovereign by the United Nations. The Executive Council may make any decision, as necessity may arise, concerning a political unit which is not a member of the United Nations.

21. The French text of the Statutes is the definitive text.

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### INTERNATIONAL ASPECTS OF THE VENEREAL DISEASE PROBLEM<sup>1</sup>

VENERAL diseases are a major health problem throughout the world and their increased incidence during wartime has continued unabated into the postwar period in many countries, according to statistics assembled in a comprehensive report on "International Aspects of the Venereal Disease Problem" by Dr. Thorstein Guthe of the World Health Organization and Dr. John C. Hume of the United States Public Health Service and the Johns Hopkins School of Hygiene and Public Health, with the collaboration of other experts.

In addition to presenting extensive data on world incidence of

<sup>1</sup> Guthe, Thorstein, M.D., and Hume, John C., M.D., with the collaboration of Gaskill, Robert C.; Mazár, Harold; Gjestland, Trygve; and Sanchez-Perez, Rafael: International Aspects of the Venereal Disease Problem. *Journal of Social Hygiene*, February, 1948, Vol. 34, No. 2, pp. 51-95. Reprints 40¢ (50¢ if mailed outside the U.S.A.), available from American Social Hygiene Association, 1790 Broadway, New York 19.

syphilis, the authors review past efforts at international co-operation by governmental and nongovernmental organizations for the control of venereal diseases and discuss a series of recommendations as a basis for a broad international program to be undertaken by the World Health Organization in cooperation with other international commissions and agencies. The social approach to the venereal disease problem is stressed as well as the medical and public health approach.

The Interim Commission of the World Health Organization has given evidence of its interest in promoting world cooperation in combatting the venereal diseases by appointing an International Committee of Experts on Venereal Diseases which held its first meeting January 12-16, 1948 and by placing the program for international action on the agenda of the first World Health Assembly convening in Geneva in June, 1948.

The discussion of immediate and long-range programs for combatting venereal diseases by Dr. Guthe and Dr. Hume should be of interest to public health administrators generally as many aspects of the program are equally applicable to local administration.

DOROTHY G. WIEHL

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### UNDERSTANDING SOCIETY<sup>1</sup>

DURING the past twenty-five years, in addition to heavy teaching, administrative, and editorial duties, Howard W. Odum has written a good-sized stack of books on such subjects as sociological theory, regionalism, race relations, and public welfare.

Those who know Odum probably would say that the high productivity of books is only an incidental part of the drive behind this human dynamo. In fact, the title of the book under review here, *UNDERSTANDING SOCIETY: THE PRINCIPLES OF DYNAMIC SOCIOLOGY*, probably reveals the drive as much as anything. For the author has devoted his professional life to the

<sup>1</sup> Odum, Howard W.: *UNDERSTANDING SOCIETY: THE PRINCIPLES OF DYNAMIC SOCIOLOGY*. New York, The Macmillan Company, 1947, 749 pages, \$5.00.

idea that if social engineering is to be sound, it must be built on knowledge and understanding. Living in a rapidly changing world, he has striven to keep sociological theory and research abreast of the times.

Doubtless the author was thinking in part of the needs and problems of G.I. students when he planned **UNDERSTANDING SOCIETY** as a modern postwar textbook. In his preface he states ". . . the modern student wants more than negative answers and he expects the answers somehow to relate not only to the understanding of society but to the achievement of security, reality, and participation in both personal and social life. . . . Still more specifically, the voice of the people seems to echo the verdict of their leaders that unless we can provide a science of human relations to match the science and technology of the material world, society is faced with disaster or even destruction" (p. 3).

The content of the book is developed in a logical and unified manner. The seven main divisions, in order, are preview to the understanding of society; society and nature; society and culture; society and civilization; society and the people; society and its problems; and social research and social theory.

One of the central theses of the author has to do with the supplanting of *folkways* and *mores* by *technicways*. As is known, according to William Graham Sumner's usage, folkways are the ways of doing things that have been gradually developed by tradition into the mores (or customs) of given societies. According to Odum, however, "In the modern civilized world, at least in the supertechnological area, the old, slow-growing order of folkways, mores, and stateways no longer operates; in reality, there are no longer any mores or matured folkways, since by definition these can grow up only over long periods of time. Instead, because of such technological achievements in atomic energy, transportation and communication, and many chemical inventions, there are new *technicways*, which are habits of the individual and the customs of the group arising specifically as to time and occasion to meet the survival needs of a modern technological world" (p. 229). He assumes that "in the *technicways* we have phenomenon [sic] even more significant than the old *folkways* and as subversive of them as

some of the later developments of science and history are to some of the Malthusian population theories" (p. 229).

Odum emphasizes that "technicways" are not technologies and inventions themselves but the habits and customs of people in a technological environment. He cites patterns of urban life and commercialized recreation as cases in point. He also discusses at some length the technicways of parenthood and of the man-woman relationship. "In the folkways and mores of the people, extending all the way up from early times, values were fixed to the point where marriage and large families represented 'the way' for rich living and for the development of the race. However, it may be said that now young people who marry do not anticipate large families, nor do they expect to have children until their income reaches a point where a child can be born, brought up, and educated in accordance with the prevailing ideas. This is especially true of youth on the level of higher education and industrial competition. . . .

"There are other elements that have entered the question of parenthood. Science has developed ways of contraception, movements are on foot for the orderly planning of parenthood, and birth control has become a major consideration in population policies. Although birth control has been opposed by a number of the churches, and is contrary to the folkways and the mores of many people, the movement has very clearly developed as a technicway because it is opposed to the folkways and mores" (pp. 370-371).

Demographers might wish to enter several reservations to the above statement. They might point out that folkways and mores are still the primary determinants of fertility among over half of the world's population. In view of Odum's emphasis on the modern aspects of contraception, they might remind the reader that birth rates have been declining in this country since about 1800. As for the birth control movement being "opposed to folkways and mores," they might point out that some methods of contraception themselves are frequently designated as "folkway methods." One of these, coitus interruptus, was documented under different terminology in Genesis, probably played a substantial role in the early declines in fertility in this country and in other countries, and apparently is still

a fairly common method among some groups. This method, according to Alva Myrdal, implemented in large part the great declines in fertility in Sweden during the past two generations.<sup>2</sup>

In his final chapter Odum sets up a distinction between folk culture and state civilization. "Folk culture is . . . identified with primary institutions and community, within the framework of face to face institutions, the family, religion, ceremonials, mutual aid, primary occupation and primary conflict" (p. 707). "The state civilization is identified with industrialization and the industrial community, with urbanism and the process of urbanization. It is identified with science, invention, technology, organization. It is identified with speed, bigness and complexity [and also with] intellectualism and cultural specialization, centralization and power, and with state society and totalitarianism" (p. 708). The author apparently believes it possible to reconcile these "two main currents of societal development" and to "achieve balance and equilibrium between the folk culture and the state civilization." The alternative course—a continued trend toward state civilization with no effort to conserve the survival values of folk culture—might lead easily to self destruction.

There are a few minor errors in the book. Thus on page 409, the author states "The *Population Index* for August, 1942, made estimates for 1950, 1960, 1970, and 1980 and also by age and sex. By 1950 the total population would be 140,561,000 and in 1980 it would be 153,022,000." In the first place there is no *August, 1942* issue of *Population Index*, and whereas that periodical might *present* estimates, to the writer's knowledge it has never *made* any under its own aegis. Actually, the figures cited by Odum are the *medium* estimates of Thompson and Whelpton and they were published originally in National Resources Committee: Population Statistics. 1. National Data, U. S. Government Printing Office, Washington, D. C., October, 1937, p. 9. The word *medium* is emphasized because the *medium* estimates comprised only one set of a series of estimates based on varying assumptions regarding trends in fertility, mortality, and immigration. Finally, it should be noted that the 1937 estimates cited by Odum have since been superseded

<sup>2</sup> Myrdal, Alva: *NATION AND FAMILY*. New York, Harper & Brothers, 1941, p. 51.

by revisions made in 1943 and 1946. Probably the second, or certainly the first, of these revisions was available for citation.

In view of the broad scope of Odum's book, however, the deficiencies in detail, such as those mentioned above, can well be regarded as only minor matters. For in *UNDERSTANDING SOCIETY*, the canvas is necessarily large and the brush is understandably wide.

CLYDE V. KISER

		GENERATIONS OF COMPLETE ADVERSE SELECTION															
		.005	.010	.020	.030	.040	.050	.100	.200	.300	.400	.500	.600	.700	.800	.900	.990
0		.005	.010	.020	.030	.040	.050	.100	.200	.300	.400	.500	.600	.700	.800	.900	.990
1		.004	.008	.015*	.022	.033	.058	.095*	.125*	.150*	.172	.191	.208	.223	.237	.249	
2		.004	.007	.012	.017	.028	.044	.058	.078	.086	.092	.098	.103	.107	.111		
3		.003	.006	.010	.013	.016	.018	.026	.036	.043	.048	.051	.054	.057	.059	.061	.062
4		.003	.005*	.008	.010	.012	.014	.019	.026	.032	.034	.036	.037	.038	.039	.040	
5		.003	.004	.007	.009	.010	.011	.015*	.019	.021	.023	.024	.025*	.026	.027	.028	
6		.002	.004	.006	.007	.008	.009	.012	.015*	.016	.017	.018	.019	.019	.020	.020	
7		.002	.003	.005*	.006	.007	.008	.010	.012	.013	.014	.014	.015*	.015*	.015*	.016	
8		.002	.003	.004	.005*	.006	.006	.008	.010	.011	.011	.012	.012	.012	.012	.012	
9		.002	.003	.004	.005*	.005*	.006	.007	.008	.009	.009	.009	.010	.010	.011		
10		.002	.002	.003	.004	.004	.005*	.005*	.006	.007	.007	.008	.008	.008	.008	.008	
11		.002	.002	.003	.004	.004	.005*	.005*	.006	.006	.006	.007	.007	.007	.007	.007	
12		.001															
13		.002	.002	.003	.003	.003	.004	.004	.005*	.005*	.005*	.005*	.005*	.005*	.005	.005	
14		.002	.002	.003	.003	.003	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	
15		.002	.002	.002	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	
16		.001															
17		.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	
18		.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	
19		.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	
20		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	
21		.001															
22		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	
23		.001															
24		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	
25		.001															

FREQUENCY OF A RECESSIVE TRAIT IN THE POPULATION





